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NORTH CAROLINA GEOLOGICAL AND ECONOMIC SURVEY

JOSEPH HYDE PRATT, STATE GEOLOGIST

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**BULLETIN No. 20**

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# WATER-POWERS OF NORTH CAROLINA

(A SUPPLEMENT TO BULLETIN No. 8)

PREPARED BY THE

HYDROGRAPHIC DIVISION OF THE U. S. GEOLOGICAL SURVEY

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# LETTER OF TRANSMITTAL.

CHAPEL HILL, N. C., August 1, 1910.

*To His Excellency,* HON. W. W. KITCHIN,
*Governor of North Carolina.*

SIR:—Since the publication of Bulletin No. 8 on the Water-powers of North Carolina, in 1898, a great deal of data and information regarding these water-powers have been collected by the United States Geological Survey in co-operation with the State Survey, and a manuscript has been prepared for the State by the Hydrographic Division of the Federal Survey, of this information, which we believe will be of very great value and assistance to those interested in the development of the water-powers of the State. This manuscript I have the honor to submit for publication as Bulletin No. 20 of the North Carolina Geological and Economic Survey series.

Yours respectfully,

JOSEPH HYDE PRATT,
*State Geologist.*

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# PREFACE.

Of all the natural resources of North Carolina, there are perhaps none of so much value to the State in connection with her industrial development as her water-powers. The value of these water-powers cannot be overestimated, and this refers not only to the larger streams capable of developing from 10,000 to 40,000 H. P., but particularly to the great number of small water-powers capable of developing from a few to several hundred horse-power. These latter are to be found on many of the small streams in all parts of the central and western portions of the State and are sufficient for the requirements of some local industry. Their development does not require a very large outlay of capital, so that they are usually within the reach of the individual or a company of moderate means. In many instances their development and utilization will mean that many small manufacturing plants can be established throughout the State whose operations are independent of fuel and whose establishment would be impossible if they were dependent upon coal to develop their power.

Many of these water-powers in the State, which formerly could not be utilized on account of their location, can now be developed and used to advantage by installing at the water-power an electric plant and transmitting electric power to the point of consumption. There are many towns in North Carolina that are now without electric lights or power which could, at comparatively small expense, obtain the same by the development of water-powers that are sufficiently large for the purpose and located close to the town.

Of all the Southern States, North Carolina stands perhaps first in the number and magnitude of her available water-powers, and, when all factors regarding the development and utilization of these water-powers are considered, there is perhaps no State in the Union equal to North Carolina in this respect.

In 1898 Bulletin No. 8 on the Water-powers of North Carolina was published by the Geological Survey, which gave detailed descriptions of the physiographic features of the State; the drainage areas; the geological distribution of the water-powers; and the different causes that affect the flow of streams. Since that time the State Survey, in co-operation with the United States Geological Survey, has maintained from 20 to 30 gaging stations on the principal rivers and streams in the

State, at which daily measurements have been made of the height of the river surfaces, and occasional measurements have been made of the flow and volume of water. In this way a large amount of new information has been collected relating to the flow of the principal streams and many of the smaller streams and tributaries, so that it has been possible to prepare tables giving the amount of available water that a stream will carry and how much this can be increased by storage and reservoirs. The value of the present publication will be found chiefly in the fact that it will present the results of careful scientific investigations carried on through a term of years, so that the results given regarding the available power at all seasons of the year, which have been computed from the known fall of the amount of water in the stream at that point, can be relied upon as accurate.

The manuscript for this bulletin has been prepared in the office of the Hydrographic Division of the United States Geological Survey, under the general supervision of Mr. M. O. Leighton, Chief Hydrographer, and Mr. M. R. Hall, Hydrographer for the South Atlantic States, and the State Geologist desires to express his appreciation and sincere thanks to the members of the United States Geological Survey for their courtesy in preparing it.

Joseph Hyde Pratt,
*State Geologist.*

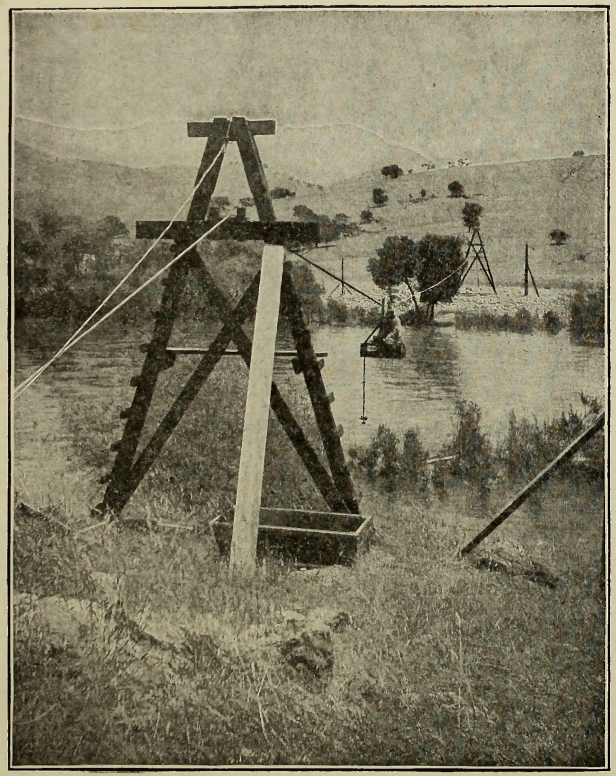

FIG. 1*a*.—A TYPICAL CABLE STATION.

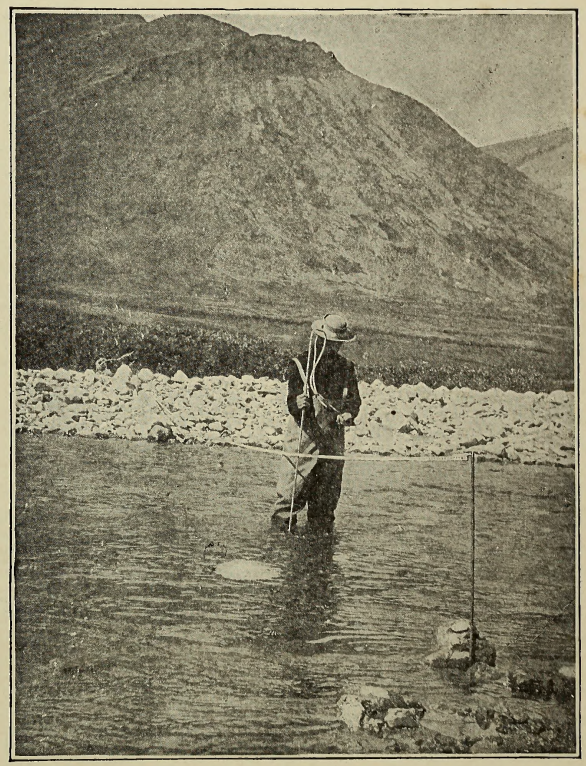

FIG. 1*b*.

MEASURING VELOCITY OF STREAMS WITH CURRENT METERS.

# WATER-POWERS OF NORTH CAROLINA.

A CO-OPERATIVE REPORT BY THE UNITED STATES GEOLOGICAL SURVEY,
GEORGE OTIS SMITH, Director,
AND THE NORTH CAROLINA GEOLOGICAL AND ECONOMIC SURVEY,
JOSEPH HYDE PRATT, State Geologist.

## INTRODUCTION.

It is the purpose of this publication to present in a single volume the large amount of data relating to the flow and power of North Carolina streams, resulting from the work of the water resources branch of the United States Geological Survey, which was begun in the year 1895. A portion of these results were published in 1898 in Bulletin No. 8 on the Water-powers of North Carolina, together with descriptions of the larger water-powers and their locations. These data consist essentially of gage heights and discharge measurements that can be used to show the continuous daily flow of the streams, added to which are certain river profiles, in the form of tabulated elevation of the water surface at points along the river, that can be used to estimate the available fall at any place. The amount of water flowing in the stream and the fall which can be used will determine the amount of power which can be developed. A quick formula to use is as follows:

$$\frac{\text{Flow in sec.-ft.} \times \text{fall in feet}}{11} = \text{net horse-power on water wheel, realizing 80 per cent of the theoretical power.}$$

### ORGANIZATION AND SCOPE OF WORK.

The hydrographic work of the United States Geological Survey includes the collection of facts concerning and the study of conditions affecting the behavior of water from the time it reaches the earth as rain or snow until it joins the oceans or great navigable rivers.

The chief features of the hydrographic work are the collection of data relating to the flow of the surface waters and the study of the conditions affecting this flow. There is also collected information concerning river profiles, duration and magnitude of floods, water-power, etc., which may be of use in hydrographic studies. This work includes the study of the hydrography of every important river basin, and is of direct value in the commercial and agricultural development of the country.

In order to collect the material from which estimates of daily flow are made, gaging stations are established. The selection of a site for a gaging station and the length of time it is maintained depend largely upon the physical features and the needs of each locality. If the water is to be used for power, special effort is made to obtain information concerning the minimum flow; if water is to be stored, the maximum flow receives special attention. In all sections of the country permanent stations are maintained for general statistical purposes, to show the condi-

tions existing through long periods. They are also used as primary stations, and, in connection with short series of measurements, serve as a basis for estimating the flow at other points in the drainage basin.

## DEFINITIONS.

The volume of water flowing in a stream, the "run-off" or "discharge," is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups: (1) Those which represent a rate of flow, as second-feet, gallons per minute, miner's inch, and run-off in second-feet per square mile; and (2) those which represent the actual quantity of water, as run-off in depth in inches and acre-foot. They may be defined as follows:

"Second-foot" is an abbreviation for cubic foot per second, and is the quantity of water flowing in a stream one foot wide, one foot deep, at a rate of one foot per second. It is generally used as a fundamental unit from which others are computed.

"Gallons per minute" is generally used in connection with pumping and city water supply.

The "miner's inch" is the quantity of water that passes through an orifice one inch square under a head which varies locally. It has been commonly used by miners and irrigators throughout the West, and is defined by statute in each State in which it is used. In most States the California miner's inch is used, which is the fiftieth part of a second-foot.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly, both as regards time and area.

"Run-off in inches" is the depth to which the drainage area would be covered if all the water flowing from it in a given period were conserved and uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in depth in inches.

"Acre-foot" is equivalent to 43,560 cubic feet, and is the quantity required to cover an acre to the depth of one foot. It is commonly used in connection with storage for irrigation work. There is a convenient relation between the second-foot and the acre-foot. One second-foot flowing for twenty-four hours will deliver 86,400 cubic feet or approximately two acre-feet.

## EXPLANATION OF TABLES.

For each regular gaging station are given, as far as available, the following data:

1. Description of station.
2. List of discharge measurements.
3. Gage-height table.
4. Rating table.
5. Table of estimated monthly and yearly discharges and run-off, based upon all the facts obtained to date.

The descriptions of stations give such general information about the locality and equipment as would enable the reader to find and use the station, and they also give, as far as possible, a complete history of all the changes that have occurred since the establishment of the station that would be factors in using the data collected.

The discharge-measurement table gives the results of the discharge measurements made during the year, including the date, the name of the hydrographer, the area of cross section, the mean velocity, the gage height, and the discharge in second-feet.

The table of daily gage heights gives the daily fluctuations of the surface of the river as found from the mean of the gage readings taken each day. The gage height given in the table represents the elevation of the surface of the water above the zero of the gage. At most stations the gage is read in the morning and in the evening.

The rating table gives discharges in second-feet corresponding to each stage of the river as given by the gage heights.

In the table of estimated monthly discharge, the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest, and it is the flow as given in the rating table for that mean gage height. As the gage height is the mean for the day, there might have been short periods when the water was higher and the corresponding discharge larger than given in this column. Likewise in the column of "Minimum" the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow for each second during the month. Upon this the computations for the two remaining columns, which are defined on page 9, are based.

In the computations for the tables of this report the following general and special rules have been used:

## FUNDAMENTAL RULES FOR COMPUTATION.

1. The highest degree of precision consistent with the rational use of time and money is imperative.

2. All items of computation should be expressed by at least two and not more than four significant figures.

3. Any measurement in a vertical velocity, mean velocity, or discharge curve whose per cent of error is 5 times the average per cent of error of all the other measurements should be rejected.

4. In reducing the number of significant figures, or the number of decimal places, by dropping the last figure, the following rules apply:

(a) When the figure in the place to be rejected is less than 5, drop it out without changing the preceding figure. Example: 1,827.4 becomes 1,827.

(b) When the figure in the place to be rejected is greater than 5, drop it and increase the preceding figure by 1. Example: 1,827.6 becomes 1,828.

(c) When the figure in the place to be rejected is 5, and it is preceded by an even figure, drop the five. Example: 1,828.5 becomes 1,828.

(d) When the figure in the place to be rejected is 5, and it is preceded by an odd figure, drop the 5 and increase the preceding figure by 1. Example: 1,827.5 becomes 1,828.

### SPECIAL RULES FOR COMPUTATION.

1. Rating tables are to be constructed as close as the data upon which they are based will warrant. No decimals are to be used when the discharge is over 50 second-feet.

2. Daily discharges shall be applied directly to the gage heights as they are tabulated.

3. Monthly means are to be carried out to one decimal place when the quantities are below 100 second-feet. Between 100 and 10,000 second-feet the last figure in the monthly mean shall be a significant figure. This also applies to the yearly mean.

4. Second-feet per square mile and depth in inches for the individual months shall be carried out to at least three significant figures, except in the case of the decimals where the first significant figure is preceded by one or more naughts (0), when the quantity shall be carried out to two significant figures. Example: 1.25; 0.125; 0.012; 0.0012. The yearly means for the quantities are always to be expressed in three significant figures and at least two decimal places.

### CONVENIENT EQUIVALENTS.

1 second-foot equals 50 California miner's inches.

1 second-foot equals 38.4 Colorado miner's inches.

1 second-foot equals 40 Arizona miner's inches.

1 second-foot equals 7.48 United States gallons per second; equals 448.8 gallons per minute; equals 646,272 gallons for one day.

1 second-foot equals 6.23 British imperial gallons per second.

1 second-foot for one year covers 1 square mile 1.131 feet deep, 13,572 inches deep.

1 second-foot for one year equals 0.000214 cubic mile; equals 31,536,000 cubic feet.

1 second-foot equals about 1 acre-inch per hour.

1 second-foot falling 10 feet equals 1.136 horse-power.

100 California miner's inches equals 15 United States gallons per second.

100 California miner's inches equals 77 Colorado miner's inches.

100 California miner's inches for one day equals 4 acre-feet.

100 Colorado miner's inches equals 2.60 second-feet.

100 Colorado miner's inches equals 19.5 United States gallons per second.

100 Colorado miner's inches equals 130 California miner's inches.

100 Colorado miner's inches for one day equals 5.2 acre-feet.

100 United States gallons per minute equals 0.223 second-foot.

100 United States gallons per minute for one day equals 0.44 acre-feet.

1 million United States gallons per day equals 1.55 second-feet.

1 million United States gallons equals 3.07 acre-feet.

1 million cubic feet equals 22.95 acre-feet.

1 acre-foot equals 325,850 gallons.

1 inch deep on 1 square mile equals 2,323,200 cubic feet.

1 inch deep on 1 square mile equals 0.0737 second-foot per year.

1 inch equals 2.54 centimeters.
1 foot equals 0.3048 meter.
1 yard equals 0.9144 meter.
1 mile equals 1.60935 kilometers.
1 mile equals 1,760 yards; equals 5,280 feet; equals 63,360 inches.
1 square yard equals 0.836 square meter.
1 acre equals 0.4047 hectare.
1 acre equals 43,560 square feet; equals 4,840 square yards.
1 acre equals 209 feet square, nearly.
1 square mile equals 259 hectares.
1 square mile equals 2.59 square kilometers.
1 cubic foot equals 0.0283 cubic meter.
1 cubic foot equals 7.48 gallons; equals 0.804 bushel.
1 cubic foot of water weighs 62.5 pounds.
1 cubic yard equals 0.7646 cubic meter.
1 cubic mile equals 147,198,000,000 cubic feet.
1 cubic mile equals 4,667 second-feet for one year.
1 gallon equals 3.7854 liters.
1 gallon equals 8.36 pounds of water.
1 gallon equals 231 cubic inches (liquid measure).
1 pound equals 0.4536 kilogram.
1 avoirdupois pound equals 7,000 grains.
1 troy pound equals 5,760 grams.
1 meter equals 39.37 inches. Log. 1.5951654.
1 meter equals 3.280833 feet. Log. 0.5159842.
1 meter equals 1.093611 yards. Log. 0.0388629.
1 kilometer equals 3,281 feet; equals five-eighths mile, nearly.
1 square meter equals 10,764 square feet; equals 1,196 square yards.
1 hectare equals 2.471 acres.
1 cubic meter equals 35.314 cubic feet; equals 1.308 cubic yards.
1 liter equals 1.0567 quarts.
1 gram equals 15.43 grains.
1 kilogram equals 2.2046 pounds.
1 tonneau equals 2,204.6 pounds.
1 foot per second equals 1.097 kilometers per hour.
1 foot per second equals 0.68 mile per hour.
1 cubic meter per minute equals 0.5886 second-foot.
1 atmosphere equals 15 pounds per square inch; 1 ton per square foot; 1 kilogram per square centimeter.
Acceleration of gravity equals 32.16 feet per second every second.
1 horse-power equals 550 foot-pounds per second.
1 horse-power equals 76 kilogram-meters per second.
1 horse-power equals 746 watts.
1 horse-power equals 1 second-foot falling 8.8 feet.
1⅓ horse-power equal about 1 kilowatt.

## FIELD METHODS OF MEASURING STREAM FLOW.

*Velocity method.*—The determination of the quantity of water flowing past a certain section of a stream at a given time is termed a discharge measurement. This quantity is the product of two factors—the mean velocity and the area of the cross section. The mean velocity is a function of surface slope, wetted perimeter, roughness of bed, and the

channel conditions at, above, and below the gaging section. The area depends upon the contour of the bed and the fluctuations of the surface. The two principal ways of measuring the velocity of a stream are by floats and current meters.

Great care is taken in the selection and equipment of gaging stations for determining discharge by velocity measurements in order that the data may have the required degree of accuracy. Their essential requirements are practically the same whether the velocity is determined by meters or floats. They are located as far as possible where the channel is straight both above and below the gaging section; where there are no cross currents, back-water or boils; where the bed of the stream is reasonably free from large projections of a permanent character; and where the banks are high and subject to overflow only at flood stages. The station must be so far removed from the effects of tributary streams and dams or other artificial obstructions that the gage height shall be an index of the discharge.

There are generally pertinent to a gaging station certain permanent or semipermanent structures which are usually referred to as equipment. These are a gage for determining the fluctuations of the water surface, bench marks to which the datum of the gage is referred, permanent marks on a bridge or a tagged line indicating the points of measurement, and where the current is swift, some appliance (generally a secondary cable) to hold the meter in position in the water. As a rule, the stations are located at bridges if the channel conditions are satisfactory, as from them the observations can more readily be made and the cost of the equipment is small.

In measuring velocity by a float, observation is made of the time taken by the float to pass over the "run," a selected stretch of river from 50 to 200 feet long. In each discharged measurement a large number of velocity determinations are made at different points across the stream, and from these observations the mean velocity for the whole section is determined. This may be done by platting the mean positions of the floats as indicated by the distances from the bank as ordinates and the corresponding times as abscissas. A curve through these points shows the mean time of run at any point across the stream, and the mean time for the whole stream is obtained by dividing the area bounded by this curve and its axis by the width. The length of the run divided by the mean time gives the mean velocity.

The area used in float measurements is the mean of the areas at the two ends of the run and at several intermediate sections.

The essential parts of the current meters in use are a wheel of some type, so constructed that the impact of flowing water causes it to revolve, and a device for recording or indicating the number of revolutions. The relation between the velocity of the moving water and the revolutions of the wheel is determined for each meter. This rating is done by drawing the meter through still water for a given distance at different speeds, and noting the number of revolutions for each run. From these data a rating table is prepared which gives the velocity per second for any number of revolutions.

Many kinds of current meters have been constructed. They may, however, be classed in two general types: Those in which the wheel is made up of a series of cups, as the Price, and those having a screw propeller wheel, as the Haskell. Each meter has been developed for use under some special condition. In the case of the small Price meter, which has been largely developed and has been extensively used by the United States Geological Survey, an attempt has been made to get an instrument which could be used under practically all conditions.

Current-meter measurements may be made from a bridge, a cable, a boat, or by wading, and gaging stations may be classified in accordance with such use. Fig. 1 shows a typical cable station.

In making the measurements an arbitrary number of points are laid off on a line perpendicular to the thread of the stream. The points at which the velocity and depth are observed are known as measuring points, and are usually fixed at regular intervals, varying from 2 to 20 feet, depending upon the size and condition of the stream. Perpendiculars dropped from the measuring points divide the gaging section into strips. For each strip or pair of strips the mean velocity, area, and discharge are determined independently, so that conditions existing in one part of the stream may not be extended to parts where they do not apply.

There are in general use three classes of methods of measuring velocity with current meters: multiple-point, single-point, and integration.

The three principal multiple-point methods in general use are the vertical velocity-curve; 0.2 and 0.8 depth; and top, bottom, and mid-depth.

In the vertical velocity-curve method a series of velocity determinations are made in each vertical at regular intervals, usually from 0.5 to 1 foot apart. By platting these volocities as abscissas and their depths as ordinates, and drawing a smooth curve among the resulting points, the vertical velocity-curve is developed. This curve shows graphically the magnitude and changes in velocity from the surface to the bottom of the stream. The mean velocity in the vertical is then obtained by dividing the area bounded by this velocity-curve and its axis by the depth. On account of the length of time required to make a complete measurement by this method, its use is limited to the determination of coefficients for purposes of comparison and measurements under ice.

In the second multiple-point method the meter is held successively at 0.2 and 0.8 of the depth and the mean of the velocities at these two points is taken as the mean velocity for that vertical. Assuming that the vertical velocity-curve is a common parabola with horizontal axis, the mean of the velocities at 0.22 and 0.79 of the depth will give (closely) the mean velocity in the vertical. Actual observations under a wide range of conditions show that this second multiple-point method gives the mean velocity very closely for open-water conditions where the depth is over 5 feet and the bed comparatively smooth, and moreover the indications are that it will hold nearly as well for ice-covered rivers.

The single-point method consists in holding the meter either at the depth of the thread of mean velocity, or at an arbitrary depth for which the coefficient for reducing to mean velocity has been determined.

Extensive experiments by vertical velocity-curves show that the thread of mean velocity generally occurs at from 0.5 to 0.7 of the total depth. In general practice the thread of mean velocity is considered to be at 0.6 depth, at which point the meter is held in a majority of the measurements. A large number of vertical velocity-curve measurements taken on many streams and under varying conditions show that the average coefficient for reducing the velocity obtained at 0.6 depth to mean velocity is practically unity.

In the other principal single-point method the meter is held near the surface, usually 1 foot below, or low enough to be out of the effect of the wind or other disturbing influences. This is known as the subsurface method. The coefficient for reducing the velocity taken at the subsurface to the mean has been found to be from 0.85 to 0.95, depending upon the stage, velocity and channel conditions. The higher the stage the larger the coefficient. This method is specially adapted for flood measurements, or when the velocity is so great that the meter cannot be kept at 0.6 depth.

The area, which is the other factor in the velocity method of determining the discharge of a stream, depends on the stage of the river, which is observed on the gage, and on the general contour of the bed of the stream, which is determined by soundings. The soundings are usually taken at each measuring point at the time of the discharge measurement, either by using the meter and cable, or by a special sounding line or rod. For streams with permanent beds standard cross sections are usually taken during low water. These sections serve to check the soundings which are taken at the time of the measurements, and from them any change which may have taken place in the bed of the stream can be detected. They are also of value in obtaining the area for use in computations of high-water measurements, as accurate soundings are hard to obtain at high stages.

In computing the discharge measurements from the observed velocities and depths at various points of measurement, the measuring section is divided into elementary strips, as shown in Fig. 1, and the mean velocity, area, and discharge are determined separately for either a single or a double strip. The total discharge and the area are the sums of those for the various strips, and the mean velocity is obtained by dividing the total discharge by the total area.

## OFFICE METHODS OF COMPUTING RUN-OFF.

For stations of streams with permanent beds the first step in computing the run-off is the construction of a rating table, which shows the discharge corresponding to any stage of the stream. This rating table is applied to the record of stage to determine the amount of water flowing.

The data necessary for the construction of a rating table for a velocity-area station are the results of the discharge measurements, which include the record of stage of the river at the time of measurement, the area of the cross section, the mean velocity of the current, and the quantity of water flowing, and a thorough knowledge of the conditions at and in the vicinity of the station.

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The construction of the rating table depends upon the following laws of flow for open permanent channels: (1) The discharge will remain constant so long as conditions at or near the gaging station remain constant. (2) Neglecting the change of slope due to the rise and fall of the stream, the discharge will be the same whenever the stream is at a given stage. (3) The discharge is a function of and increases gradually with the stage.

The plotting of results of the various discharge measurements, using gage heights as ordinates, and discharge, mean velocity, and area as abscissas, will define curves which show the discharge, mean velocity, and area corresponding to any gage height. For the development of these curves there should be, therefore, a sufficient number of discharge measurements to cover the range of the stage of the stream.

As the discharge is the product of two factors, the area and the mean velocity, any change in either factor will produce a corresponding change in the discharge. Their curves are therefore constructed in order to study each independently of the other.

The area curve can be definitely determined from accurate soundings extending to the limits of high water. It is always concave toward the horizontal axis or on a straight line, unless the banks of the stream are overhanging.

The form of the mean velocity curve depends chiefly upon the surface slope, the roughness of the bed, and the cross section of the stream. Of these the slope is the principal factor. In accordance with the relative changes of these factors the curve may be either a straight line, convex or concave toward either axis, or a combination of the three. From a careful study of the conditions at any gaging station the form which the vertical velocity curve will take can be predicted, and it may be extended with reasonable certainty to stages beyond the limits of actual measurements. Its principal use is in connection with the area curve in locating errors in discharge measurements and in constructing the rating table.

The discharge curve is defined primarily by the measurements of discharge, which are studied and weighted in accordance with the local conditions existing at the time of each measurement. The curve may, however, best be located between and beyond the measurements by means of curves of area and mean velocity. The discharge curve under normal conditions is concave toward the horizontal axis and is generally parabolic in form.

In the preparation of the rating table the discharge for each tenth or half tenth on the gage is taken from the curve. The differences between successive discharges are then taken and adjusted according to the law that they shall either be constant or increasing.

The determination of daily discharge of streams with changeable beds is a difficult problem. In case there is a weir or dam available, a condition which seldom exists on streams of this class, estimates can be obtained by its use. In case of velocity-area stations frequent discharge measurements must be made if the estimates are to be other than rough approximates.

## DRAINAGE BASINS.

In the following pages there are given descriptions of the drainage basins in which the gaging stations are located. The ones discussed are the drainage basins of the Roanoke, Tar, Neuse, Cape Fear, Yadkin, Santee, Kanawha and Tennessee rivers.

The map, Plate II, shows the location of the gaging stations and also shows, approximately, the location of developed and undeveloped water-powers.

Since the publication of Bulletin 8 a great advance has been made in water-power development, due to the practicability of converting water-power into electric power and transmitting this to the point of consumption. This fact makes possible the development of the large water-powers of North Carolina, such as that of the Southern Power Company, of Charlotte, which has developed a series of water-powers on the Catawba River; of the Whitney Company, which has developed water-power at the narrows of the Yadkin River; and of the Rockingham Power Company, which has developed the water-power at Bleuitt Falls on the Pee Dee River.

80°
81°
82°
LEGEND
UNDEVELOPED WATER-POWERS
GAGING STATIONS

## DRAINAGE BASINS.

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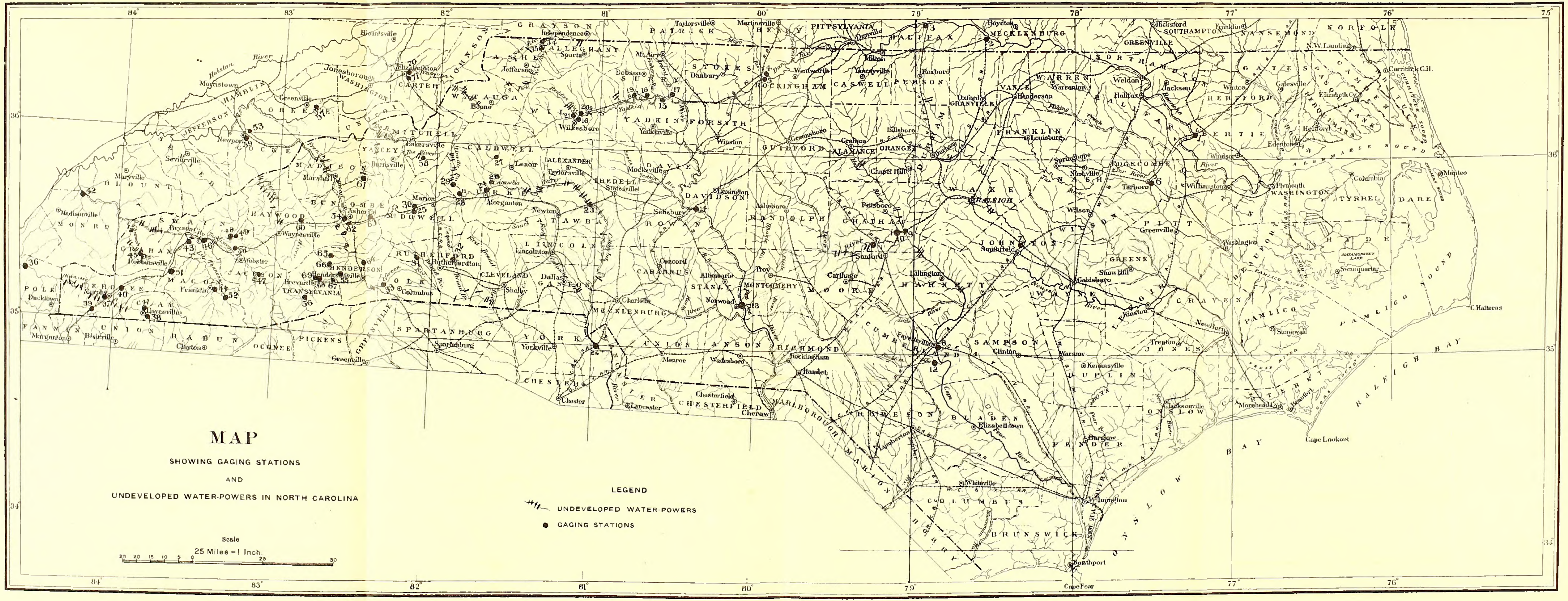
MAP
SHOWING GAGING STATIONS
AND
UNDEVELOPED WATER-POWERS IN NORTH CAROLINA
LEGEND
UNDEVELOPED WATER-POWERS
GAGING STATIONS
Scale
25 Miles = 1 Inch.

# MAP

SHOWING GAGING STATIONS

AND

UNDEVELOPED WATER-POWERS IN NORTH CAROLINA

Scale

25 Miles = 1 Inch.

# ROANOKE RIVER DRAINAGE BASIN.

## DESCRIPTION OF BASIN.

Dan River joins the Roanoke at Clarksville, Mecklenburg County, Va., 185 miles above its mouth, and is its largest tributary. The Roanoke drains a total area of 9,200 square miles, and empties into Albemarle Sound a short distance below Plymouth, N. C. It is navigable at all stages for 120 miles, to Weldon, N. C., where it crosses the fall line. The Dan and the Roanoke above their junction drain, respectively, 3,798 and 3,546 square miles. The Roanoke is the more northerly of the two, and its drainage basin lies entirely in Virginia. It rises among the eastern foothills of the Blue Ridge, southwest of Roanoke and Salem, and flows at first northeast, then southeast to its junction with the Dan. The Dan rises in Surry County, N. C., and Patrick County, Va., and flows at first southeast, then northeast to its junction with the Roanoke. A large part of the drainage area of the Dan lies in North Carolina.

During 1905 a survey of Roanoke River was made in order to determine a plan and profile and other information which would be of use in hydraulic developments. For description, plan, and profile of this survey see Bulletin No. 3 of the Geological Survey of Virginia.

The rainfall on the basin of the Roanoke above the fall line is about 48 inches per annum, and is evenly distributed throughout the year. The average amount probably increases slightly as the stream is ascended, though the records of rainfall over the basin are too incomplete to decide this matter. The slopes in the headwater and in the upper tributaries are steep, freshets on the river are violent, and the fluctuations of height occur with great rapidity. Rises of 50 feet and over have been noted at Weldon, and freshets in which the rate of rise is 10 feet a day or more are frequent.

## MEASUREMENTS OF STREAM FLOW.

### ROANOKE RIVER AT NEAL, N. C.

This station was established on July 27, 1896. It is located at the Norfolk and Carolina Railroad bridge at Neal, near Kelford, N. C.

The zero of the gage rod is over the center of the fourth floor beam of the second span from the north end of the bridge. The distance from the zero of the rod to the outer rim of the pulley is 2.47 feet, and the distance from the end of the weight to the pointer on the wire is 44.66 feet.

The section is a fairly good one, the course of the river being straight for some distance above and below the station and the bottom smooth. Being muddy, however, the bed is apt to cut out in seasons of high water, and both banks are subject to overflow. The observer was the bridge watchman, W. M. Adams, of Neal, N. C. The station was discontinued May 31, 1903.

List of Discharge Measurements Made on Roanoke River at Neal, N. C.

| Date. | Hydrographer. | Meter No. | Gage Height (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1896. | | | | | | |
| July 27 | E. W. Myers | 2154 | 7.05 | 3,152 | 1.53 | 4,849 |
| Sept. 7 | ----do | 2154 | 1.31 | 2,148 | 1.21 | 2,610 |
| Dec. 19 | ----do | 2154 | 11.60 | 5,214 | 1.76 | 9,180 |
| 1897. | | | | | | |
| Jan. 23 | E. W. Myers | 2154 | 12.65 | 5,551 | 2.37 | 13,155 |
| Feb. 27 | ----do | 2154 | 27.95 | 44,666 | 1.44 | 64,132 |
| Mar. 17 | ----do | 2154 | 24.71 | 31,590 | 1.19 | 37,659 |
| May 17 | ----do | 2154 | 18.40 | 7,240 | 2.65 | 19,219 |
| Oct. 1 | ----do | 2154 | 1.00 | 1,544 | 1.24 | 1,928 |
| 1898. | | | | | | |
| Jan. 11 | E. W. Myers | 2154 | 4.43 | 2,606 | 1.65 | 4,334 |
| May 10 | ----do | 2154 | 22.50 | 8,140 | 3.42 | 27,880 |
| 1899. | | | | | | |
| Feb. 5 | E. W. Myers | ------ | 20.80 | ---------- | ---------- | 23,998 |
| May 25 | ----do | ------ | 6.41 | ---------- | ---------- | 6,045 |
| June 7 | ----do | ------ | 6.45 | ---------- | ---------- | 6,110 |
| Oct. 12 | ----do | ------ | 8.60 | ---------- | ---------- | 7,973 |
| Nov. 28 | ----do | ------ | 4.13 | ---------- | ---------- | 4,439 |
| 1900. | | | | | | |
| Feb. 10 | E. W. Myers | ------ | 9.70 | ---------- | ---------- | 9,361 |
| Apr. 10 | ----do | ------ | 7.10 | ---------- | ---------- | 6,266 |
| Apr. 11 | ----do | ------ | 6.90 | ---------- | ---------- | 6,002 |
| Apr. 24 | ----do | ------ | 25.60 | ---------- | ---------- | 49,896 |
| May 11 | ----do | ------ | 4.69 | ---------- | ---------- | 5,503 |
| June 30 | ----do | ------ | 10.12 | ---------- | ---------- | 9,530 |
| Aug. 10 | ----do | ------ | 1.40 | ---------- | ---------- | 2,342 |
| Nov. 2 | ----do | ------ | 3.18 | ---------- | ---------- | 3,734 |
| 1901. | | | | | | |
| Apr. 3 | E. W. Myers and others | ------ | 19.90 | ---------- | ---------- | 24,004 |
| Apr. 4 | ----do | ------ | 21.80 | ---------- | ---------- | 28,875 |
| July 17 | ----do | ------ | 22.90 | ---------- | ---------- | 35,400 |
| Nov. 30 | ----do | ------ | 5.60 | ---------- | ---------- | 5,558 |
| 1902. | | | | | | |
| May 9 | J. S. Henderson | ------ | 9.90 | 5,296 | 2.19 | 12,612 |
| July 14 | B. S. Drane | ------ | 5.40 | 3,018 | 1.94 | 5,805 |
| Aug. 20 | ----do | ------ | 6.20 | 2,848 | 1.58 | 4,497 |
| Oct. 15 | ----do | ------ | 16.90 | 5,933 | 2.29 | 13,579 |

Daily Gage Height, in Feet, of Roanoke River at Neal, N. C., for 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 3.56 | 1.65 | 2.80 | 2.60 | 5.40 | 17 | ------ | 3.50 | 4.30 | 3.60 | 6.20 | 13.30 |
| 2 | ------ | 3.90 | 1.30 | *21.80 | 2.50 | 15.85 | 18 | ------ | 2.70 | 4.64 | 3.40 | 5.80 | 13.30 |
| 3 | ------ | 4.15 | 1.00 | 23.00 | 2.40 | 19.70 | 19 | ------ | 5.30 | 3.50 | 3.10 | 5.12 | 11.70 |
| 4 | ------ | 3.70 | 1.00 | 25.10 | 2.40 | 17.70 | 20 | ------ | 5.20 | 2.50 | 2.90 | 4.70 | 10.00 |
| 5 | ------ | 3.40 | 1.24 | 24.20 | 2.90 | 14.80 | 21 | ------ | 3.90 | 2.80 | 2.70 | 4.40 | 8.80 |
| 6 | ------ | 3.00 | 1.30 | 20.80 | 3.10 | 12.50 | 22 | ------ | 2.90 | 2.60 | 2.50 | 4.20 | 7.80 |
| 7 | ------ | 2.90 | 1.30 | 17.00 | 17.00 | 11.00 | 23 | ------ | 2.40 | 2.80 | 2.40 | 4.00 | 7.00 |
| 8 | ------ | 2.80 | 5.05 | 13.70 | 20.30 | 10.30 | 24 | ------ | 2.00 | 3.30 | 2.50 | 3.80 | 6.40 |
| 9 | ------ | 2.50 | 8.90 | 11.10 | 18.50 | 9.90 | 25 | ------ | 2.03 | 3.30 | 2.60 | 3.70 | 5.90 |
| 10 | ------ | 2.20 | 7.30 | 8.90 | 14.90 | 9.20 | 26 | ------ | 2.25 | 2.60 | 2.60 | 3.60 | 5.40 |
| 11 | ------ | 2.10 | 5.00 | 7.10 | 11.80 | 8.40 | 27 | 7.05 | 2.50 | 8.10 | 2.70 | 3.60 | 5.00 |
| 12 | ------ | 2.30 | 3.30 | 5.60 | 9.70 | 7.60 | 28 | 5.09 | 2.20 | 1.80 | 2.70 | 3.50 | 4.60 |
| 13 | ------ | 2.90 | 2.20 | 4.50 | 8.20 | 6.90 | 29 | 4.08 | 2.90 | 1.60 | 2.80 | 3.50 | 4.10 |
| 14 | ------ | 5.20 | 1.80 | 4.20 | 7.10 | 6.30 | 30 | 4.24 | 2.70 | 1.90 | 2.72 | 3.80 | 3.90 |
| 15 | ------ | 5.60 | 1.56 | 4.10 | 6.30 | 6.00 | 31 | 3.80 | 2.20 | --------- | 2.60 | ------ | 4.00 |
| 16 | ------ | 4.60 | 2.10 | 3.80 | 6.10 | 8.30 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT NEAL, N. C., FOR 1897-1898.

| 1897. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.40 | 3.40 | 24.20 | 9.30 | 6.40 | 5.90 | 3.90 | 3.90 | 2.20 | 1.20 | 3.10 | 11.00 |
| 2 | 4.70 | 4.30 | 23.70 | 9.00 | 6.40 | 5.50 | 3.40 | 3.20 | 2.10 | .80 | 3.40 | 10.10 |
| 3 | 5.00 | 11.50 | 19.10 | 8.70 | 6.80 | 5.90 | 3.10 | 2.60 | 2.90 | .60 | 4.20 | 8.70 |
| 4 | 4.90 | 20.25 | 16.90 | 8.50 | 12.60 | 5.90 | 6.80 | 2.10 | 3.90 | .50 | 5.50 | 7.30 |
| 5 | 4.90 | 21.50 | 14.90 | 8.40 | 17.10 | 5.30 | 6.90 | 2.00 | 3.40 | .40 | 8.10 | 6.30 |
| 6 | 4.60 | 20.90 | 13.60 | 9.40 | 14.90 | 4.90 | 5.30 | 2.10 | 2.60 | .30 | 7.50 | 6.90 |
| 7 | 4.40 | 21.10 | 15.20 | 11.00 | 12.40 | 5.70 | 3.90 | 1.90 | 2.00 | .30 | 5.80 | 7.70 |
| 8 | 4.40 | 22.80 | 21.05 | 14.10 | 10.60 | 7.40 | 3.30 | 1.90 | 1.50 | .20 | 4.50 | 7.80 |
| 9 | 4.50 | 24.30 | 22.25 | 13.40 | 9.10 | 7.50 | 3.30 | 2.40 | 1.10 | .10 | 3.60 | 7.20 |
| 10 | 4.50 | 26.30 | 22.70 | 14.10 | 8.10 | 6.20 | 5.00 | 3.10 | .90 | .10 | 3.00 | 6.50 |
| 11 | 4.20 | 26.55 | 22.20 | 19.90 | 7.40 | 5.60 | 5.20 | 3.00 | .80 | .10 | 2.67 | 5.70 |
| 12 | 3.90 | 24.65 | 21.60 | 19.60 | 6.90 | 6.00 | 4.80 | 3.20 | .60 | .20 | 2.50 | 4.80 |
| 13 | 3.80 | 22.70 | 22.30 | 17.00 | 7.00 | 5.60 | 5.40 | 4.30 | .50 | .20 | 2.40 | 4.48 |
| 14 | 4.00 | 21.20 | 23.40 | 14.40 | 8.90 | 5.30 | 5.80 | 3.30 | .50 | .30 | 2.20 | 4.10 |
| 15 | 4.20 | 20.60 | 23.90 | 12.50 | 17.30 | 4.70 | 6.20 | 2.90 | .40 | .30 | 2.15 | 4.10 |
| 16 | 4.20 | 19.20 | 24.40 | 11.10 | 19.40 | 4.40 | 6.90 | 2.60 | .30 | 6.40 | 2.10 | 4.15 |
| 17 | 4.10 | 18.00 | 24.70 | 10.20 | 19.10 | 4.10 | 6.10 | 2.10 | .10 | 5.60 | 2.00 | 6.00 |
| 18 | 4.20 | 17.90 | 24.40 | 9.70 | 16.70 | 4.00 | 4.40 | 1.80 | .10 | 3.90 | 1.93 | 7.40 |
| 19 | 4.60 | 16.70 | 23.40 | 9.40 | 13.70 | 3.90 | 3.40 | 1.40 | .00 | 2.50 | 1.93 | 7.30 |
| 20 | 4.70 | 14.70 | 22.00 | 9.00 | 11.20 | 3.60 | 3.30 | 3.00 | .10 | 1.80 | 1.93 | 6.20 |
| 21 | 5.00 | 14.20 | 20.70 | 8.40 | 9.50 | 5.30 | 5.10 | 2.60 | .00 | 2.10 | 1.90 | 5.50 |
| 22 | 7.00 | 20.15 | 20.40 | 7.80 | 8.40 | 11.40 | 8.30 | 2.40 | .00 | 2.30 | 1.90 | 5.20 |
| 23 | 12.65 | 22.45 | 19.30 | 7.40 | 7.80 | 11.50 | 9.90 | 2.30 | .10 | 2.10 | 1.90 | 6.83 |
| 24 | 13.90 | 24.05 | 17.60 | 7.10 | 7.40 | 8.10 | 9.10 | 2.70 | .20 | 3.70 | 1.80 | 11.00 |
| 25 | 13.00 | 25.80 | 15.90 | 6.80 | 7.30 | 5.80 | 7.10 | 4.20 | .40 | 4.40 | 1.80 | 12.50 |
| 26 | 10.80 | 27.25 | 14.50 | 6.70 | 7.40 | 4.40 | 5.70 | 4.90 | .30 | 4.10 | 1.90 | 4.30 |
| 27 | 8.60 | 28.00 | 13.40 | 6.60 | 11.00 | 4.10 | 4.90 | 4.20 | .30 | 3.80 | 2.00 | 9.60 |
| 28 | 7.50 | 26.40 | 12.20 | 6.50 | 11.40 | 4.60 | 4.70 | 3.10 | .80 | 3.70 | 2.00 | 9.30 |
| 29 | 5.90 | ------- | 11.30 | 6.50 | 9.37 | 4.75 | 4.00 | 2.60 | 1.90 | 3.60 | 3.90 | 11.00 |
| 30 | 3.40 | ------- | 10.40 | 6.50 | 7.40 | 4.50 | 3.90 | 2.40 | 1.60 | 3.70 | 11.18 | 11.80 |
| 31 | 3.10 | ------- | 9.80 | ------- | 6.30 | ------- | 4.40 | 2.40 | ------- | 3.40 | ------ | 10.20 |
| 1898. | | | | | | | | | | | | |
| 1 | 8.60 | 8.60 | 3.40 | 10.00 | 6.10 | 11.20 | 3.20 | 7.80 | 5.30 | 13.50 | 16.80 | 7.50 |
| 2 | 7.40 | 7.30 | 3.50 | 15.30 | 5.40 | 9.80 | 3.60 | 7.20 | 5.30 | 11.00 | 17.30 | 8.10 |
| 3 | 6.40 | 6.70 | 3.40 | 15.20 | 4.70 | 8.60 | 3.40 | 6.70 | 4.80 | 9.10 | 15.00 | 8.30 |
| 4 | 5.70 | 5.80 | 3.50 | 12.80 | 4.30 | 7.10 | 2.70 | 6.20 | 3.80 | 7.50 | 12.30 | 9.00 |
| 5 | 4.80 | 4.90 | 4.30 | 10.60 | 4.00 | 5.67 | 1.90 | 5.30 | 3.30 | 6.10 | 10.10 | 10.50 |
| 6 | 4.20 | 4.10 | 7.40 | 9.90 | 4.30 | 4.40 | 1.85 | 4.50 | 2.70 | 5.40 | 8.50 | 15.70 |
| 7 | 4.00 | 3.60 | 9.70 | 13.00 | 6.70 | 3.80 | 4.20 | 3.50 | 2.30 | 5.80 | 7.70 | 20.90 |
| 8 | 4.40 | 4.00 | 9.20 | 15.40 | 15.95 | 3.30 | 4.20 | 5.65 | 7.50 | 12.80 | 6.90 | 20.10 |
| 9 | 4.60 | 4.40 | 8.10 | 14.30 | 20.85 | 3.00 | 3.90 | 6.90 | 8.90 | 13.00 | 6.80 | 17.50 |
| 10 | 4.60 | 4.80 | 6.90 | 11.50 | 22.51 | 2.90 | 5.30 | 5.90 | 8.60 | 10.40 | 6.70 | 14.80 |
| 11 | 4.43 | 4.90 | 6.00 | 9.80 | 22.51 | 2.70 | 5.90 | 4.70 | 7.90 | 8.10 | 6.20 | 12.70 |
| 12 | 4.50 | 4.80 | 5.40 | 8.30 | 20.00 | 2.30 | 5.90 | 4.10 | 5.50 | 6.40 | 5.70 | 10.90 |
| 13 | 4.68 | 4.70 | 4.90 | 7.30 | 16.95 | 2.20 | 4.80 | 4.60 | 3.80 | 5.30 | 5.30 | 9.50 |
| 14 | 4.80 | 4.70 | 4.80 | 7.40 | 14.20 | 2.10 | 5.15 | 5.30 | 2.60 | 4.60 | 5.30 | 8.50 |
| 15 | 4.80 | 4.40 | 5.00 | 8.40 | 12.10 | 2.40 | 4.40 | 9.20 | 2.10 | 4.20 | 5.50 | 7.70 |
| 16 | 4.85 | 4.20 | 5.00 | 7.90 | 11.32 | 4.20 | 3.30 | 11.70 | 1.80 | 3.80 | 5.40 | 7.10 |
| 17 | 4.90 | 3.90 | 4.80 | 7.80 | 12.50 | 6.90 | 2.50 | 15.70 | 1.60 | 3.50 | 5.50 | 6.50 |
| 18 | 4.60 | 3.70 | 4.60 | 8.20 | 12.75 | 9.00 | 3.30 | 12.50 | 1.40 | 3.20 | 5.70 | 5.75 |
| 19 | 4.30 | 3.60 | 4.40 | 7.90 | 11.90 | 12.30 | 6.90 | 8.90 | 1.35 | 3.20 | 6.00 | 5.50 |
| 20 | 4.30 | 3.40 | 4.20 | 7.10 | 9.90 | 15.00 | 7.80 | 6.60 | 1.20 | 3.80 | 6.90 | 5.90 |
| 21 | 4.10 | 3.40 | 4.00 | 6.40 | 8.30 | 14.70 | 8.60 | 6.00 | 1.10 | 6.30 | 9.00 | 6.70 |
| 22 | 4.20 | 3.80 | 3.80 | 5.70 | 6.50 | 15.80 | 7.80 | 5.70 | 1.00 | 11.80 | 11.10 | 7.30 |
| 23 | 5.10 | 4.50 | 3.60 | 5.20 | 5.60 | 13.50 | 6.15 | 7.80 | 1.20 | 10.40 | 10.80 | 8.20 |
| 24 | 6.90 | 5.00 | 3.50 | 4.90 | 10.60 | 10.20 | 4.90 | 6.80 | 2.00 | 12.10 | 9.80 | 9.50 |
| 25 | 7.40 | 4.90 | 3.45 | 4.80 | 21.61 | 7.40 | 4.60 | 5.30 | 21.28 | 22.30 | 9.20 | 14.80 |
| 26 | 7.30 | 4.60 | 3.40 | 5.50 | 22.66 | 5.10 | 5.90 | 4.20 | 22.73 | 22.10 | 9.30 | 17.80 |
| 27 | 8.50 | 4.20 | 3.50 | 8.10 | 22.20 | 4.00 | 7.25 | 3.30 | 23.88 | 20.98 | 8.90 | 15.20 |
| 28 | 12.00 | 3.80 | 4.10 | 9.40 | 20.60 | 3.20 | 6.90 | 4.80 | 23.20 | 16.50 | 7.90 | 12.75 |
| 29 | 13.50 | ------- | 4.80 | 8.50 | 18.30 | 2.90 | 5.30 | 4.70 | 20.60 | 14.30 | 7.00 | 10.80 |
| 30 | 12.00 | ------- | 5.10 | 7.20 | 16.00 | 3.15 | 5.80 | 5.00 | 17.00 | 12.40 | 7.20 | 9.50 |
| 31 | 10.10 | ------- | 6.00 | ------- | 13.30 | ------- | 8.10 | 4.80 | ------- | 11.20 | ------ | 8.00 |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT NEAL, N. C., FOR 1899-1900.

| 1899. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 7.40 | 9.10 | 22.80 | 20.60 | 10.50 | 8.10 | 8.40 | 7.30 | 11.00 | 3.60 | 4.30 | 4.00 |
| 2 | 7.60 | 10.20 | 23.40 | 19.10 | 9.50 | 10.30 | 7.20 | 6.50 | 8.20 | 3.00 | 10.50 | 4.20 |
| 3 | 10.50 | 10.70 | 22.80 | 17.40 | 9.00 | 12.20 | 5.70 | 5.90 | 5.70 | 2.70 | 12.30 | 4.30 |
| 4 | 14.20 | 11.00 | 21.80 | 16.00 | 9.10 | 12.60 | 4.70 | 5.10 | 4.10 | 2.50 | 12.00 | 4.20 |
| 5 | 13.10 | 20.75 | 22.70 | 15.20 | 9.00 | 10.50 | 4.20 | 3.80 | 3.90 | 2.30 | 13.40 | 4.10 |
| 6 | 11.35 | 22.35 | 24.00 | 14.90 | 8.80 | 8.30 | 4.20 | 3.50 | 5.70 | 2.80 | 14.15 | 3.95 |
| 7 | 10.80 | 23.95 | 25.25 | 15.00 | 8.70 | 6.50 | 4.60 | 3.60 | 5.00 | 5.30 | 12.10 | 3.80 |
| 8 | 17.25 | 25.55 | 26.08 | 17.70 | 8.60 | 5.40 | 7.10 | 4.20 | 4.00 | 6.90 | 9.50 | 3.50 |
| 9 | 23.25 | 26.80 | 26.10 | 21.40 | 8.70 | 4.90 | 11.10 | 5.60 | 3.10 | 7.80 | 7.60 | 3.30 |
| 10 | 25.50 | 27.05 | 25.10 | 23.00 | 8.90 | 4.60 | 11.20 | 6.70 | 2.70 | 9.10 | 6.30 | 3.20 |
| 11 | 27.75 | 26.40 | 23.20 | 23.60 | 10.80 | 5.00 | 9.80 | 6.20 | 3.70 | 9.90 | 5.50 | 3.10 |
| 12 | 26.80 | 24.50 | 21.20 | 22.30 | 11.30 | 8.10 | 7.50 | 5.00 | 5.80 | 8.70 | 5.10 | 3.20 |
| 13 | 24.55 | 21.30 | 19.20 | 20.20 | 13.00 | 17.80 | 5.50 | 5.40 | 6.00 | 6.90 | 4.60 | 3.50 |
| 14 | 22.25 | 17.50 | 17.60 | 18.30 | 12.60 | 21.50 | 4.20 | 7.30 | 5.50 | 5.50 | 4.30 | 7.00 |
| 15 | 21.80 | 14.30 | 17.70 | 16.80 | 11.90 | 22.40 | 3.50 | 5.40 | 4.30 | 4.50 | 4.10 | 11.50 |
| 16 | 21.00 | 12.50 | 22.80 | 15.40 | 11.40 | 22.40 | 3.20 | 4.50 | 3.40 | 3.90 | 4.00 | 11.50 |
| 17 | 19.05 | 12.90 | 23.80 | 14.30 | 10.40 | 21.00 | 3.10 | 6.50 | 2.90 | 3.60 | 3.90 | 9.20 |
| 18 | 18.00 | 19.50 | 25.70 | 13.40 | 9.20 | 18.10 | 3.30 | 10.90 | 2.40 | 3.45 | 3.80 | 7.20 |
| 19 | 16.90 | 19.60 | 26.80 | 12.60 | 8.10 | 15.20 | 3.40 | 9.20 | 2.10 | 3.30 | 3.70 | 6.00 |
| 20 | 15.80 | 24.70 | 26.10 | 11.90 | 7.50 | 12.40 | 4.20 | 7.20 | 2.00 | 3.25 | 3.60 | 5.10 |
| 21 | 14.40 | 26.80 | 26.10 | 11.40 | 7.10 | 10.20 | 4.50 | 5.40 | 2.00 | 3.00 | 3.50 | 4.70 |
| 22 | 13.20 | 27.25 | 27.80 | 10.50 | 6.90 | 8.60 | 4.80 | 4.30 | 11.25 | 3.20 | 3.40 | 4.40 |
| 23 | 12.20 | 26.90 | 30.00 | 10.00 | 6.60 | 7.30 | 3.90 | 3.30 | 14.00 | 2.90 | 3.35 | 4.30 |
| 24 | 11.30 | 26.20 | 29.35 | 9.70 | 6.30 | 6.30 | 3.80 | 2.80 | 10.60 | 2.80 | 3.35 | 4.45 |
| 25 | 10.80 | 25.20 | 27.40 | 9.40 | 6.40 | 5.20 | 4.70 | 2.40 | 7.55 | 2.70 | 3.60 | 6.40 |
| 26 | 10.30 | 23.60 | 25.50 | 9.10 | 6.90 | 4.80 | 4.80 | 2.10 | 5.40 | 2.60 | 3.80 | 8.40 |
| 27 | 10.10 | 22.00 | 22.80 | 9.40 | 7.00 | 4.40 | 7.20 | 1.80 | 4.70 | 2.60 | 4.00 | 8.60 |
| 28 | 9.90 | 21.80 | 20.70 | 11.80 | 6.40 | 4.30 | 7.30 | 1.60 | 4.90 | 2.60 | 4.10 | 8.10 |
| 29 | 8.70 | ------ | 19.60 | 12.30 | 5.90 | 6.30 | 11.80 | 1.70 | 5.10 | 2.70 | 3.80 | 6.80 |
| 30 | 8.20 | ------ | 20.10 | 11.60 | 5.60 | 6.70 | 11.90 | 13.70 | 4.60 | 2.70 | 3.70 | 5.60 |
| 31 | 8.60 | ------ | 21.00 | -------- | 5.90 | -------- | 9.50 | 12.90 | -------- | 3.00 | -------- | 3.50 |
| 1900. | | | | | | | | | | | | |
| 1 | 2.10 | 7.80 | 16.40 | 12.20 | 12.90 | 5.80 | 9.15 | 7.40 | 2.15 | 1.80 | 3.70 | 8.70 |
| 2 | 2.10 | 6.70 | 18.50 | 11.60 | 11.50 | 5.40 | 8.10 | 4.80 | 2.50 | 2.60 | 3.20 | 6.50 |
| 3 | 2.00 | 5.00 | 21.80 | 11.10 | 10.40 | 5.20 | 7.20 | 3.30 | 1.80 | 1.90 | 2.80 | 5.30 |
| 4 | 2.20 | 4.30 | 23.10 | 10.20 | 9.60 | 4.80 | 6.30 | 2.70 | 1.20 | 1.20 | 4.00 | 4.60 |
| 5 | 2.20 | 4.60 | 24.65 | 9.50 | 8.80 | 4.50 | 5.30 | 2.60 | .70 | 1.25 | 6.40 | 4.70 |
| 6 | 3.50 | 6.80 | 23.80 | 9.00 | 8.10 | 4.20 | 4.50 | 2.25 | .40 | 1.45 | 7.80 | 11.75 |
| 7 | 4.30 | 12.70 | 21.50 | 8.50 | 7.60 | 4.50 | 4.00 | 1.90 | .40 | 1.45 | 9.00 | 20.75 |
| 8 | 4.30 | 12.70 | 19.00 | 8.10 | 7.20 | 4.50 | 3.70 | 1.60 | .30 | 1.50 | 7.90 | 18.80 |
| 9 | 4.30 | 11.10 | 17.30 | 7.50 | 7.00 | 4.30 | 3.70 | 1.30 | .30 | 1.90 | 6.50 | 14.60 |
| 10 | 4.50 | 9.75 | 17.70 | 7.20 | 7.10 | 4.20 | 3.40 | 1.30 | .70 | 2.90 | 5.10 | 11.80 |
| 11 | 5.10 | 9.90 | 18.10 | 6.90 | 7.00 | 4.10 | 3.00 | 1.20 | .50 | 3.50 | 4.20 | 9.40 |
| 12 | 7.00 | 11.10 | 18.30 | 6.90 | 6.60 | 4.20 | 2.90 | 1.00 | .20 | 3.20 | 3.70 | 7.70 |
| 13 | 12.00 | 13.10 | 17.30 | 8.50 | 6.30 | 4.15 | 3.10 | .90 | .10 | 3.20 | 3.40 | 6.60 |
| 14 | 19.60 | 20.50 | 15.30 | 9.80 | 5.90 | 4.00 | 2.60 | .80 | .30 | 2.20 | 3.10 | 5.80 |
| 15 | 19.90 | 22.50 | 13.60 | 10.20 | 5.50 | 4.10 | 2.50 | .60 | .40 | 2.10 | 2.85 | 5.10 |
| 16 | 17.60 | 23.88 | 12.70 | 9.70 | 5.20 | 7.60 | 2.30 | .40 | .40 | 1.70 | 2.80 | 4.70 |
| 17 | 14.30 | 23.90 | 12.10 | 8.50 | 4.80 | 9.90 | 2.80 | .40 | .10 | 2.80 | 2.70 | 4.30 |
| 18 | 11.70 | 22.80 | 13.40 | 7.50 | 4.70 | 11.20 | 2.50 | .60 | 1.80 | 3.90 | 2.50 | 4.20 |
| 19 | 10.20 | 19.70 | 14.40 | 7.10 | 4.95 | 17.40 | 2.00 | .40 | 12.40 | 3.70 | 2.40 | 3.85 |
| 20 | 9.30 | 17.00 | 14.10 | 21.75 | 5.10 | 16.10 | 1.90 | .40 | 9.20 | 2.90 | 2.25 | 3.70 |
| 21 | 18.05 | 14.70 | 13.40 | 23.40 | 7.80 | 12.90 | 1.60 | .40 | 6.20 | 2.20 | 2.25 | 3.80 |
| 22 | 21.25 | 3.60 | 13.90 | 24.63 | 7.60 | 9.80 | 1.40 | .40 | 3.80 | 1.70 | 2.20 | 4.40 |
| 23 | 23.40 | 14.60 | 15.80 | 25.95 | 6.70 | 8.00 | 1.40 | .40 | 2.50 | 1.50 | 2.28 | 4.90 |
| 24 | 23.50 | 21.65 | 15.30 | 25.55 | 5.90 | 6.70 | 1.50 | .70 | 1.30 | 1.35 | 2.35 | 5.40 |
| 25 | 21.60 | 22.30 | 13.50 | 24.20 | 6.00 | 6.30 | 6.00 | .90 | 1.45 | 1.20 | 2.50 | 6.40 |
| 26 | 18.50 | 22.10 | 12.70 | 23.60 | 6.60 | 11.50 | 9.60 | 2.00 | 1.35 | 5.50 | 2.60 | 6.80 |
| 27 | 15.80 | 20.95 | 13.00 | 21.10 | 14.70 | 15.20 | 8.60 | 2.10 | 1.80 | 15.40 | 2.70 | 8.20 |
| 28 | 13.10 | 18.80 | 14.30 | 18.40 | 13.70 | 13.00 | 10.45 | 1.50 | 2.40 | 11.80 | 3.00 | 7.90 |
| 29 | 11.70 | ------ | 14.20 | 16.00 | 10.40 | 12.00 | 13.60 | 1.10 | 2.50 | 8.50 | 11.60 | 6.95 |
| 30 | 10.40 | ------ | 13.40 | 14.30 | 8.00 | 10.45 | 13.45 | 1.10 | 2.50 | 6.10 | 11.40 | 5.90 |
| 31 | 9.10 | ------ | 13.30 | -------- | 6.70 | -------- | 10.40 | 1.40 | -------- | 4.60 | -------- | 5.90 |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT NEAL, N. C., FOR 1901-1902.

| 1901. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.60 | 5.80 | 3.55 | 19.50 | 11.40 | 21.30 | 10.40 | 5.70 | 22.10 | 10.50 | 4.40 | 5.20 |
| 2 | 7.50 | 5.60 | 3.80 | 16.30 | 10.20 | 18.80 | 8.70 | 5.50 | 19.50 | 12.20 | 4.45 | 4.80 |
| 3 | 7.90 | 5.50 | 3.80 | 19.00 | 9.20 | 16.70 | 10.70 | 5.50 | 17.40 | 13.00 | 4.40 | 4.60 |
| 4 | 7.70 | 5.40 | 3.60 | 22.65 | 8.30 | 14.40 | 9.80 | 5.20 | 15.50 | 13.50 | 4.40 | 4.90 |
| 5 | 6.70 | 5.20 | 3.45 | 24.45 | 7.40 | 12.70 | 9.20 | 4.70 | 13.50 | 11.90 | 4.40 | 6.10 |
| 6 | 6.00 | 5.60 | 3.40 | 26.25 | 6.80 | 11.30 | 7.70 | 4.30 | 11.70 | 9.70 | 4.40 | 8.60 |
| 7 | 5.20 | 5.80 | 3.35 | 26.45 | 6.30 | 10.10 | 6.10 | 5.80 | 10.40 | 8.10 | 4.40 | 9.60 |
| 8 | 4.70 | 7.10 | 3.40 | 25.90 | 5.50 | 9.50 | 5.70 | 17.40 | 9.10 | 7.00 | 4.30 | 8.30 |
| 9 | 4.40 | 6.60 | 3.40 | 23.40 | 5.90 | 8.90 | 7.10 | 23.05 | 8.30 | 6.30 | 4.35 | 7.00 |
| 10 | 4.30 | 6.20 | 3.20 | 20.40 | 6.50 | 8.60 | 8.70 | 25.15 | 7.60 | 5.90 | 4.40 | 6.20 |
| 11 | 4.30 | 7.10 | 3.30 | 17.60 | 11.40 | 9.40 | 8.50 | 26.30 | 7.00 | 5.70 | 4.30 | 5.80 |
| 12 | 4.40 | 8.35 | 3.80 | 15.40 | 16.40 | 8.10 | 8.00 | 25.10 | 6.60 | 5.50 | 4.25 | 5.80 |
| 13 | 5.75 | 8.50 | 5.60 | 12.70 | 15.70 | 7.00 | 6.90 | 23.35 | 6.20 | 5.40 | 4.25 | 5.80 |
| 14 | 21.58 | 7.70 | 6.40 | 11.60 | 13.20 | 6.25 | 6.10 | 23.20 | 6.00 | 6.50 | 4.30 | 6.10 |
| 15 | 22.65 | 6.90 | 8.85 | 12.60 | 10.30 | 5.80 | 8.80 | 23.80 | 6.00 | 8.60 | 4.30 | 7.30 |
| 16 | 22.70 | 6.20 | 8.90 | 18.25 | 8.50 | 5.75 | 17.10 | 24.85 | 5.80 | 8.45 | 4.30 | 13.10 |
| 17 | 20.16 | 5.70 | 6.60 | 19.30 | 7.10 | 6.20 | 22.80 | 26.00 | 5.60 | 8.20 | 4.30 | 21.70 |
| 18 | 17.30 | 5.20 | 5.65 | 17.80 | 6.10 | 12.40 | 24.65 | 26.37 | 6.40 | 7.60 | 4.15 | 22.40 |
| 19 | 15.20 | 4.95 | 4.95 | 15.20 | 5.40 | 15.50 | 25.80 | 26.73 | 14.20 | 6.50 | 4.00 | 22.10 |
| 20 | 13.40 | 4.80 | 4.40 | 13.10 | 5.50 | 15.60 | 24.80 | 26.25 | 19.20 | 5.80 | 4.00 | 19.20 |
| 21 | 11.70 | 4.60 | 4.40 | 11.60 | 7.00 | 13.20 | 23.95 | 25.10 | 18.50 | 5.30 | 4.00 | 15.90 |
| 22 | 9.90 | 4.50 | 4.80 | 16.50 | 9.70 | 10.70 | 22.90 | 23.70 | 15.80 | 5.10 | 4.00 | 13.30 |
| 23 | 8.50 | 4.40 | 4.70 | 20.50 | 20.30 | 12.00 | 20.45 | 22.15 | 13.10 | 4.90 | 4.00 | 9.80 |
| 24 | 7.50 | 4.20 | 4.90 | 23.15 | 23.25 | 11.90 | 17.60 | 20.10 | 10.70 | 4.80 | 4.70 | 8.80 |
| 25 | 6.90 | 3.90 | 5.60 | 23.00 | 26.10 | 10.40 | 15.10 | 18.30 | 8.80 | 4.70 | 5.60 | 8.80 |
| 26 | 6.50 | 3.70 | 6.10 | 21.30 | 30.30 | 10.50 | 13.00 | 19.10 | 7.60 | 4.60 | 7.60 | 10.60 |
| 27 | 6.15 | 3.50 | 19.95 | 19.00 | 29.25 | 9.50 | 11.10 | 19.35 | 6.60 | 4.50 | 9.10 | 12.70 |
| 28 | 6.00 | 3.80 | 22.50 | 16.70 | 27.27 | 8.60 | 9.30 | 19.80 | 6.20 | 4.50 | 8.30 | 20.80 |
| 29 | 5.60 | ------ | 23.70 | 14.10 | 25.35 | 12.30 | 7.90 | 22.55 | 6.30 | 4.40 | 6.70 | 23.50 |
| 30 | 5.20 | ------ | 24.10 | 12.90 | 24.15 | 12.90 | 7.20 | 23.67 | 8.00 | 4.30 | 5.60 | 26.05 |
| 31 | 5.20 | ------ | 22.65 | -------- | 23.00 | -------- | 6.40 | 23.60 | -------- | 4.30 | ------ | 25.95 |
| 1902. | | | | | | | | | | | | |
| 1 | 24.45 | 16.30 | 27.50 | 20.70 | 10.00 | 5.30 | 6.60 | 3.10 | 2.60 | 6.30 | 9.50 | 11.60 |
| 2 | 27.60 | 17.20 | 28.10 | 19.30 | 11.20 | 4.80 | 7.30 | 4.30 | 2.70 | 6.00 | 7.70 | 12.50 |
| 3 | 29.85 | 21.70 | 27.80 | 17.00 | 10.00 | 4.50 | 6.60 | 4.60 | 2.40 | 6.00 | 6.20 | 16.50 |
| 4 | 28.15 | 23.05 | 27.75 | 14.90 | 9.65 | 4.30 | 6.20 | 5.30 | 2.90 | 6.80 | 5.30 | 20.00 |
| 5 | 25.90 | 24.10 | 26.60 | 13.60 | 11.70 | 4.20 | 5.50 | 5.10 | 4.00 | 6.30 | 4.90 | 22.50 |
| 6 | 23.50 | 24.20 | 24.80 | 12.50 | 11.80 | 4.00 | 4.60 | 4.50 | 6.00 | 5.20 | 4.70 | 22.70 |
| 7 | 20.70 | 22.90 | 23.70 | 12.00 | 11.45 | 3.80 | 3.75 | 3.80 | 5.50 | 17.60 | 4.40 | 23.15 |
| 8 | 18.05 | 20.40 | 22.70 | 12.20 | 9.45 | 3.80 | 3.20 | 3.20 | 5.35 | 23.02 | 4.40 | 23.45 |
| 9 | 16.00 | 18.10 | 21.30 | 17.50 | 9.60 | 3.80 | 4.30 | 3.00 | 4.60 | 23.65 | 5.30 | 22.00 |
| 10 | 14.50 | 16.10 | 19.50 | 19.90 | 10.50 | 3.80 | 5.90 | 3.20 | 3.90 | 21.65 | 5.75 | 19.35 |
| 11 | 13.30 | 14.30 | 18.30 | 20.00 | 10.40 | 3.80 | 5.40 | 3.30 | 5.30 | 19.00 | 5.80 | 16.90 |
| 12 | 12.30 | 12.60 | 17.30 | 18.60 | 9.75 | 3.90 | 5.10 | 3.10 | 6.60 | 14.90 | 5.30 | 14.80 |
| 13 | 11.40 | 11.50 | 16.00 | 16.30 | 7.80 | 3.70 | 6.55 | (*) | 5.25 | 15.00 | 4.90 | 13.05 |
| 14 | 10.50 | 10.70 | 14.90 | 14.50 | 7.00 | 3.50 | 6.10 | -------- | 4.50 | 18.00 | 4.60 | 12.10 |
| 15 | 9.50 | 10.00 | 14.00 | 13.20 | 6.60 | 3.20 | 4.70 | -------- | 4.00 | 17.30 | 4.40 | 12.00 |
| 16 | 8.50 | 9.50 | 13.10 | 12.30 | 6.50 | 3.40 | 3.80 | -------- | 3.40 | 13.90 | 4.30 | 12.70 |
| 17 | 7.85 | 9.10 | 12.60 | 11.60 | 6.80 | 3.70 | 3.30 | -------- | 2.85 | 11.10 | 4.20 | 12.30 |
| 18 | 7.90 | 9.00 | 13.50 | 11.20 | 7.40 | 18.25 | 3.00 | -------- | 2.55 | 19.00 | 4.10 | 12.80 |
| 19 | 8.00 | 9.10 | 20.10 | 10.90 | 10.90 | 21.60 | 2.80 | -------- | 2.40 | 7.40 | 4.30 | 17.45 |
| 20 | 7.95 | 9.00 | 19.80 | 10.60 | 10.90 | 20.80 | 2.40 | 6.33 | 2.30 | 6.30 | 4.70 | 18.30 |
| 21 | 7.50 | 8.60 | 17.80 | 10.30 | 9.70 | 16.90 | 2.20 | 5.00 | 2.20 | 5.65 | 13.30 | 16.10 |
| 22 | 9.40 | 10.50 | 15.80 | 9.80 | 9.30 | 13.80 | 2.00 | 3.85 | 2.20 | 5.10 | 13.20 | 14.20 |
| 23 | 15.80 | 13.20 | 14.50 | 9.30 | 8.70 | 11.25 | 2.20 | 3.40 | 2.30 | 4.70 | 10.70 | 17.00 |
| 24 | 17.00 | 17.20 | 13.40 | 9.05 | 7.60 | 8.65 | 2.00 | 3.00 | 2.30 | 4.50 | 8.60 | 18.40 |
| 25 | 16.40 | 19.80 | 12.60 | 8.60 | 6.50 | 6.90 | 2.30 | 3.80 | 2.30 | 4.30 | 7.20 | 18.30 |
| 26 | 14.10 | 22.20 | 11.80 | 8.30 | 5.90 | 6.00 | 2.40 | 3.30 | 2.40 | 4.20 | 6.95 | 16.10 |
| 27 | 12.40 | 23.65 | 11.10 | 8.00 | 6.10 | 5.10 | 2.35 | 3.10 | 2.50 | 4.00 | 7.80 | 13.90 |
| 28 | 12.00 | 25.65 | 10.50 | 7.70 | 6.60 | 4.90 | 2.20 | 3.00 | 2.50 | 3.90 | 13.60 | 12.30 |
| 29 | 11.70 | ------ | 10.10 | 7.50 | 6.45 | 5.60 | 1.80 | 3.20 | 3.80 | 4.00 | 15.00 | 10.90 |
| 30 | 13.90 | ------ | 12.50 | 7.50 | 6.10 | 5.70 | 1.70 | 3.40 | 6.10 | 9.75 | 13.20 | 9.40 |
| 31 | 15.00 | ------ | 19.00 | -------- | 5.60 | -------- | 1.80 | 2.90 | -------- | 11.20 | ------ | 8.85 |

*Gage wire broken August 13 to 19.

MEAN DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT NEAL, N. C., FOR 1903.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | Day. | Jan. | Feb. | Mar. | Apr. | May. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.20 | 17.30 | 18.40 | 24.80 | 20.90 | 17 | 12.30 | 19.90 | 17.00 | 24.65 | 9.00 |
| 2 | 9.30 | 16.40 | 22.40 | 25.25 | 18.80 | 18 | 11.25 | 23.50 | 15.70 | 24.10 | 8.75 |
| 3 | 9.30 | 14.60 | 23.50 | 25.35 | 17.00 | 19 | 11.25 | 29.20 | 14.60 | 22.60 | 8.50 |
| 4 | 21.25 | 13.30 | 23.70 | 24.45 | 15.50 | 20 | 10.65 | 25.60 | 13.70 | 20.70 | 8.30 |
| 5 | 23.55 | 12.10 | 22.20 | 23.50 | 14.30 | 21 | 9.95 | 29.30 | 13.00 | 19.00 | 8.05 |
| 6 | 25.00 | 21.90 | 20.10 | 22.80 | 13.80 | 22 | 9.70 | 27.80 | 15.10 | 18.70 | 7.90 |
| 7 | 26.55 | 23.15 | 18.10 | 21.90 | 13.20 | 23 | 13.10 | 25.90 | 23.05 | 18.70 | 7.70 |
| 8 | 26.60 | 23.20 | 16.70 | 20.40 | 12.50 | 24 | 17.40 | 23.60 | 25.15 | 21.10 | 7.50 |
| 9 | 24.80 | 22.50 | 16.50 | 21.30 | 11.80 | 25 | 16.50 | 21.20 | 29.30 | 21.20 | 7.55 |
| 10 | 22.50 | 22.20 | 16.40 | 23.05 | 11.35 | 26 | 14.90 | 19.00 | 30.35 | 20.40 | 7.85 |
| 11 | 19.90 | 21.80 | 17.20 | 24.00 | 10.80 | 27 | 13.30 | 17.20 | 30.20 | 20.70 | 8.00 |
| 12 | 17.60 | 21.10 | 17.90 | 24.25 | 10.30 | 28 | 12.10 | 15.70 | 29.05 | 22.10 | 8.50 |
| 13 | 17.50 | 21.90 | 18.22 | 23.30 | 9.95 | 29 | 11.60 | ------- | 26.60 | 22.45 | 9.70 |
| 14 | 16.80 | 23.70 | 18.65 | 21.60 | 9.60 | 30 | 17.40 | ------- | 24.80 | 22.30 | 10.80 |
| 15 | 15.40 | 21.80 | 18.65 | 23.45 | 9.40 | 31 | 20.00 | ------- | 24.40 | ------- | ------- |
| 16 | 13.50 | 20.60 | 18.20 | 24.35 | 9.20 | | | | | | |

RATING TABLE FOR ROANOKE RIVER AT NEAL, N. C., FOR 1897.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.00 | 2,000 | 4.20 | 3,300 | 8.40 | 6,060 | 16.50 | 15,950 |
| 0.20 | 2,020 | 4.40 | 3,400 | 8.60 | 6,240 | 17.00 | 16,750 |
| 0.40 | 2,040 | 4.60 | 3,500 | 8.80 | 6,420 | 17.50 | 17,565 |
| 0.60 | 2,060 | 4.80 | 3,600 | 9.00 | 6,600 | 18.00 | 18,400 |
| 0.80 | 2,100 | 5.00 | 3,700 | 9.20 | 6,780 | 18.50 | 19,310 |
| 1.00 | 2,140 | 5.20 | 3,805 | 9.40 | 6,960 | 19.00 | 20,300 |
| 1.20 | 2,190 | 5.40 | 3,915 | 9.60 | 7,140 | 19.50 | 21,380 |
| 1.40 | 2,240 | 5.60 | 4,025 | 9.80 | 7,320 | 20.00 | 22,500 |
| 1.60 | 2,290 | 5.80 | 4,135 | 10.00 | 7,500 | 20.50 | 23,720 |
| 1.80 | 2,340 | 6.00 | 4,235 | 10.50 | 8,000 | 21.00 | 25,000 |
| 2.00 | 2,400 | 6.20 | 4,355 | 11.00 | 8,500 | 21.50 | 26,320 |
| 2.20 | 2,475 | 6.40 | 4,465 | 11.50 | 9,040 | 22.00 | 27,700 |
| 2.40 | 2,540 | 6.60 | 4,585 | 12.00 | 9,600 | 22.50 | 29,190 |
| 2.60 | 2,610 | 6.80 | 4,705 | 12.50 | 10,190 | 23.00 | 30,800 |
| 2.80 | 2,680 | 7.00 | 4,850 | 13.00 | 10,800 | 23.50 | 32,570 |
| 3.00 | 2,750 | 7.20 | 5,010 | 13.50 | 11,460 | 24.00 | 34,550 |
| 3.20 | 2,830 | 7.40 | 5,180 | 14.00 | 12,150 | 25.00 | 39,200 |
| 3.40 | 2,915 | 7.60 | 5,350 | 14.50 | 12,860 | 26.00 | 44,800 |
| 3.60 | 3,005 | 7.80 | 5,520 | 15.00 | 13,600 | 27.00 | 52,500 |
| 3.80 | 3,100 | 8.00 | 5,700 | 15.50 | 14,370 | 28.00 | 64,300 |
| 4.00 | 3,200 | 8.20 | 5,880 | 16.00 | 15,150 | ----- | ----- |

RATING TABLE FOR ROANOKE RIVER AT NEAL, N. C., FOR 1898-1899-1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1898. | | | | | | | |
| 1.00 | 2,060 | 4.40 | 3,384 | 8.80 | 6,080 | 18.00 | 18,300 |
| 1.10 | 2,095 | 4.60 | 3,476 | 9.00 | 6,250 | 18.50 | 19,180 |
| 1.20 | 2,130 | 4.80 | 3,568 | 9.20 | 6,430 | 19.00 | 20,100 |
| 1.30 | 2,165 | 5.00 | 3,660 | 9.40 | 6,610 | 19.50 | 21,100 |
| 1.40 | 2,200 | 5.20 | 3,760 | 9.60 | 6,800 | 20.00 | 22,300 |
| 1.50 | 2,235 | 5.40 | 3,860 | 9.80 | 7,000 | 20.50 | 23,575 |
| 1.60 | 2,270 | 5.60 | 3,965 | 10.00 | 7,200 | 21.00 | 24,900 |
| 1.70 | 2,305 | 5.80 | 4,075 | 10.50 | 7,700 | 21.50 | 26,300 |
| 1.80 | 2,340 | 6.00 | 4,185 | 11.00 | 8,200 | 22.00 | 27,750 |
| 1.90 | 2,375 | 6.20 | 4,295 | 11.50 | 8,750 | 22.50 | 29,270 |
| 2.00 | 2,410 | 6.40 | 4,405 | 12.00 | 9,300 | 23.00 | 30,900 |
| 2.20 | 2,480 | 6.60 | 4,518 | 12.50 | 9,950 | 23.50 | 32,640 |
| 2.40 | 2,550 | 6.80 | 4,634 | 13.00 | 10,600 | 24.00 | 34,550 |
| 2.60 | 2,623 | 7.00 | 4,750 | 13.50 | 11,300 | 24.50 | 36,780 |
| 2.80 | 2,699 | 7.20 | 4,880 | 14.00 | 12,000 | 25.00 | 39,150 |
| 3.00 | 2,775 | 7.40 | 5,010 | 14.50 | 12,750 | 25.50 | 41,950 |
| 3.20 | 2,855 | 7.60 | 5,150 | 15.00 | 13,500 | 26.00 | 45,000 |
| 3.40 | 2,935 | 7.80 | 5,300 | 15.50 | 14,275 | 26.50 | 49,500 |
| 3.60 | 3,020 | 8.00 | 5,450 | 16.00 | 15,075 | 27.00 | 54,250 |
| 3.80 | 3,110 | 8.20 | 5,600 | 16.50 | 15,875 | 27.50 | 59,200 |
| 4.00 | 3,200 | 8.40 | 5,750 | 17.00 | 16,600 | 28.00 | 64,300 |
| 4.20 | 3,292 | 8.60 | 5,910 | 17.50 | 17,440 | ----- | ------ |
| 1899. | | | | | | | |
| 1.0 | 2,270 | 3.4 | 3,950 | 7.0 | 6,525 | 13.0 | 12,340 |
| 1.2 | 2,410 | 3.6 | 4,090 | 7.5 | 6,970 | 13.5 | 12,890 |
| 1.4 | 2,550 | 3.8 | 4,230 | 8.0 | 7,420 | 14.0 | 13,040 |
| 1.6 | 2,690 | 4.0 | 4,370 | 8.5 | 7,870 | 14.5 | 14,040 |
| 1.8 | 2,830 | 4.2 | 4,510 | 9.0 | 8,345 | 15.0 | 14,640 |
| 2.0 | 2,970 | 4.4 | 4,650 | 9.5 | 8,840 | 16.0 | 15,940 |
| 2.2 | 3,110 | 4.6 | 4,790 | 10.0 | 9,340 | 17.0 | 17,240 |
| 2.4 | 3,250 | 4.8 | 4,930 | 10.5 | 9,840 | 18.0 | 18,600 |
| 2.6 | 3,390 | 5.0 | 5,070 | 11.0 | 10,340 | 19.0 | 20,400 |
| 2.8 | 3,530 | 5.5 | 5,420 | 11.5 | 10,840 | 20.0 | 22,400 |
| 3.0 | 3,670 | 6.0 | 5,770 | 12.0 | 11,340 | 25.0 | 39,700 |
| 3.2 | 3,810 | 6.5 | 6,120 | 12.5 | 11,840 | ---- | ------ |
| 1900. | | | | | | | |
| 0.0 | ----- | 2.6 | 3,000 | 5.5 | 5,055 | 12.0 | 11,530 |
| 0.2 | 1,440 | 2.8 | 3,140 | 6.0 | 5,430 | 12.5 | 12,105 |
| 0.4 | 1,560 | 3.0 | 3,280 | 6.5 | 5,830 | 13.0 | 12,680 |
| 0.6 | 1,680 | 3.2 | 3,420 | 7.0 | 6,230 | 13.5 | 13,255 |
| 0.8 | 1,800 | 3.4 | 3,560 | 7.5 | 6,705 | 14.0 | 13,830 |
| 1.0 | 1,920 | 3.6 | 3,700 | 8.0 | 7,200 | 14.5 | 14,405 |
| 1.2 | 2,050 | 3.8 | 3,840 | 8.5 | 7,700 | 15.0 | 15,000 |
| 1.4 | 2,180 | 4.0 | 3,980 | 9.0 | 8,200 | 16.0 | 16,200 |
| 1.6 | 2,310 | 4.2 | 4,120 | 9.5 | 8,730 | 17.0 | 17,430 |
| 1.8 | 2,440 | 4.4 | 4,260 | 10.0 | 9,280 | 18.0 | 18,680 |
| 2.0 | 2,580 | 4.6 | 4,400 | 10.5 | 9,830 | 19.0 | 20,080 |
| 2.2 | 2,720 | 4.8 | 4,540 | 11.0 | 10,380 | 20.0 | 22,000 |
| 2.4 | 2,860 | 5.0 | 4,680 | 11.5 | 10,955 | 25.0 | 40,400 |

RATING TABLE FOR ROANOKE RIVER AT NEAL, N. C., FOR 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.0 | 1,320 | 3.4 | 3,560 | 6.6 | 5,910 | 12.5 | 12,130 |
| 0.2 | 1,440 | 3.6 | 3,700 | 6.8 | 6,070 | 13.0 | 12,730 |
| 0.4 | 1,560 | 3.8 | 3,840 | 7.0 | 6,230 | 13.5 | 13,385 |
| 0.6 | 1,680 | 4.0 | 3,980 | 7.2 | 6,424 | 14.0 | 14,030 |
| 0.8 | 1,800 | 4.2 | 4,120 | 7.4 | 6,618 | 14.5 | 14,735 |
| 1.0 | 1,920 | 4.4 | 4,260 | 7.6 | 6,812 | 15.0 | 15,430 |
| 1.2 | 2,050 | 4.6 | 4,400 | 7.8 | 7,006 | 15.5 | 16,190 |
| 1.4 | 2,180 | 4.8 | 4,540 | 8.0 | 7,200 | 16.0 | 16,930 |
| 1.6 | 2,310 | 5.0 | 4,680 | 8.5 | 7,700 | 16.5 | 17,730 |
| 1.8 | 2,440 | 5.2 | 4,830 | 9.0 | 8,200 | 17.0 | 18,530 |
| 2.0 | 2,580 | 5.4 | 4,980 | 9.5 | 8,730 | 17.5 | 19,405 |
| 2.2 | 2,720 | 5.6 | 5,130 | 10.0 | 9,280 | 18.0 | 20,280 |
| 2.4 | 2,860 | 5.8 | 5,280 | 10.5 | 9,830 | 19.0 | 22,130 |
| 2.6 | 3,000 | 6.0 | 5,430 | 11.0 | 10,380 | 20.0 | 24,230 |
| 2.8 | 3,140 | 6.2 | 5,590 | 11.5 | 10,955 | 25.0 | 46,500 |
| 3.0 | 3,280 | 6.4 | 5,750 | 12.0 | 11,530 | 30.0 | 82,000 |
| 3.2 | 3,420 | --- | ----- | ---- | ------ | ---- | ------ |

RATING TABLE FOR ROANOKE RIVER AT NEAL, N. C., FOR 1902 AND 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 1,920 | 4.0 | 3,980 | 7.0 | 6,230 | 13.0 | 12,730 |
| 1.2 | 2,050 | 4.2 | 4,120 | 7.2 | 6,420 | 13.5 | 13,380 |
| 1.4 | 2,180 | 4.4 | 4,260 | 7.4 | 6,610 | 14.0 | 14,030 |
| 1.6 | 2,310 | 4.6 | 4,400 | 7.6 | 6,800 | 14.5 | 14,730 |
| 1.8 | 2,440 | 4.8 | 4,540 | 7.8 | 7,000 | 15.0 | 15,430 |
| 2.0 | 2,580 | 5.0 | 4,680 | 8.0 | 7,200 | 15.5 | 16,180 |
| 2.2 | 2,720 | 5.2 | 4,830 | 8.5 | 7,700 | 16.0 | 16,930 |
| 2.4 | 2,860 | 5.4 | 4,980 | 9.0 | 8,200 | 16.5 | 17,730 |
| 2.6 | 3,000 | 5.6 | 5,130 | 9.5 | 8,730 | 17.0 | 18,530 |
| 2.8 | 3,140 | 5.8 | 5,280 | 10.0 | 9,280 | 17.5 | 19,405 |
| 3.0 | 3,280 | 6.0 | 5,430 | 10.5 | 9,830 | 18.0 | 20,280 |
| 3.2 | 3,420 | 6.2 | 5,590 | 11.0 | 10,380 | 19.0 | 22,130 |
| 3.4 | 3,560 | 6.4 | 5,750 | 11.5 | 10,955 | 20.0 | 24,230 |
| 3.6 | 3,700 | 6.6 | 5,910 | 12.0 | 11,530 | 25.0 | 46,500 |
| 3.8 | 3,840 | 6.8 | 6,070 | 12.5 | 12,130 | 30.0 | 82,000 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT NEAL, N. C.

[Drainage area, 8,717 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| August | 4,105 | 2,750 | 3,154 | 193,933 | 0.41 | 0.36 |
| September | 6,510 | 2,400 | 3,217 | 191,424 | 0.41 | 0.37 |
| October | 39,720 | 2,890 | 9,117 | 560,586 | 1.21 | 1.05 |
| November | 23,220 | 2,890 | 5,896 | 350,836 | 0.75 | 0.68 |
| December | 21,820 | 3,415 | 7,423 | 456,425 | 0.98 | 0.85 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT NEAL, N. C.—*Continued.*
[Drainage area, 8,717 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1897. | | | | | | |
| January | 12,010 | 2,790 | 4,501 | 276,755 | 0.60 | 0.52 |
| February | 64,300 | 2,915 | 28,178 | 1,564,930 | 3.36 | 3.23 |
| March | 37,700 | 7,320 | 22,824 | 1,403,390 | 3.02 | 2.62 |
| April | 22,270 | 4,525 | 8,440 | 502,215 | 1.08 | 0.97 |
| May | 21,160 | 4,410 | 8,707 | 535,350 | 1.15 | 1.00 |
| June | 9,040 | 3,005 | 4,252 | 253,010 | 0.55 | 0.49 |
| July | 7,410 | 2,790 | 3,956 | 243,245 | 0.52 | 0.45 |
| August | 3,650 | 2,240 | 2,673 | 164,360 | 0.36 | 0.31 |
| September | 3,150 | 2,000 | 2,217 | 131,920 | 0.28 | 0.25 |
| October | 4,465 | 2,010 | 2,561 | 157,470 | 0.33 | 0.29 |
| November | 8,710 | 2,340 | 3,095 | 184,165 | 0.40 | 0.36 |
| December | 10,190 | 3,250 | 5,520 | 339,410 | 0.72 | 0.63 |
| The year | 64,300 | 2,000 | 8,077 | 5,756,220 | 12.37 | 0.93 |
| 1898. | | | | | | |
| January | 11,300 | 3,200 | 4,597 | 282,660 | 0.61 | 0.53 |
| February | 5,910 | 2,935 | 3,544 | 196,824 | 0.43 | 0.41 |
| March | 6,900 | 2,935 | 3,736 | 229,719 | 0.49 | 0.43 |
| April | 14,120 | 3,568 | 6,903 | 410,756 | 0.88 | 0.79 |
| May | 29,859 | 3,200 | 13,100 | 805,493 | 1.73 | 1.50 |
| June | 14,755 | 2,445 | 5,399 | 321,262 | 0.69 | 0.62 |
| July | 5,910 | 2,347 | 3,766 | 231,564 | 0.49 | 0.43 |
| August | 14,595 | 2,895 | 4,815 | 296,065 | 0.63 | 0.55 |
| September | 34,274 | 2,060 | 7,980 | 474,842 | 1.02 | 0.92 |
| October | 28,762 | 2,855 | 8,582 | 527,690 | 1.13 | 0.98 |
| November | 17,204 | 3,810 | 6,437 | 383,027 | 0.82 | 0.74 |
| December | 24,735 | 3,910 | 8,958 | 550,810 | 1.19 | 1.03 |
| The year | 34,274 | 2,060 | 6,485 | 4,710,712 | 10.11 | 0.74 |
| 1899. | | | | | | |
| January | 62,750 | 6,880 | 18,585 | 1,142,747 | 2.46 | 2.13 |
| February | 58,300 | 8,440 | 29,967 | 1,664,283 | 3.58 | 3.44 |
| March | 83,000 | 18,030 | 37,777 | 2,322,817 | 4.99 | 4.33 |
| April | 31,500 | 8,440 | 15,863 | 943,914 | 2.03 | 1.82 |
| May | 12,340 | 5,490 | 8,106 | 498,419 | 1.07 | 0.93 |
| June | 27,640 | 4,580 | 10,759 | 640,205 | 1.37 | 1.23 |
| July | 11,240 | 3,740 | 6,095 | 374,767 | 0.81 | 0.70 |
| August | 13,110 | 2,690 | 5,626 | 345,929 | 0.75 | 0.65 |
| September | 13,440 | 2,970 | 5,564 | 331,081 | 0.70 | 0.63 |
| October | 9,240 | 3,180 | 4,563 | 280,568 | 0.60 | 0.52 |
| November | 13,620 | 3,915 | 6,132 | 364,879 | 0.78 | 0.70 |
| December | 10,840 | 3,740 | 5,566 | 342,240 | 0.72 | 0.63 |
| The year | 83,000 | 2,690 | 12,884 | 9,251,849 | 19.86 | 1.48 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT ROANOKE, VA.
[Drainage area, 388 square miles.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 1900. | | | | | | |
| January | 4,170 | 110 | 436 | 26,809 | 1.29 | 1.12 |
| February | 5,195 | 187 | 763 | 42,375 | 2.05 | 1.97 |
| March | 4,887 | 480 | 1,044 | 64,193 | 3.11 | 2.69 |
| April | 3,452 | 260 | 667 | 39,689 | 1.92 | 1.72 |
| May | 1,010 | 187 | 313 | 19,246 | 0.93 | 0.81 |
| June | 1,240 | 187 | 411 | 24,456 | 1.18 | 1.06 |
| July | 570 | 130 | 220 | 13,527 | 0.66 | 0.57 |
| August | 140 | 85 | 100 | 6,149 | 0.30 | 0.26 |
| September | 670 | 85 | 134 | 7,974 | 0.39 | 0.35 |
| October | 5,502 | 120 | 435 | 26,747 | 1.29 | 1.12 |
| November | 12,575 | 155 | 733 | 43,617 | 2.11 | 1.89 |
| December | 4,887 | 240 | 630 | 38,737 | 1.87 | 1.62 |
| The year | 12,575 | 85 | 491 | 353,519 | 17.10 | 1.26 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT ROANOKE, VA.—*Continued.*
[Drainage area, 388 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1901. | | | | | | |
| January | 34,125 | 4,190 | 10,053 | | 1.33 | 1.15 |
| February | 7,700 | 3,630 | 5,186 | | .61 | .59 |
| March | 41,550 | 3,420 | 9,370 | | 1.23 | 1.07 |
| April | 56,960 | 11,070 | 24,914 | | 3.19 | 2.86 |
| May | 85,200 | 4,980 | 20,817 | | 2.76 | 2.39 |
| June | 27,640 | 5,240 | 11,138 | | 1.43 | 1.28 |
| July | 51,055 | 5,205 | 15,898 | | 2.10 | 1.82 |
| August | 57,300 | 4,190 | 30,897 | | 4.08 | 3.54 |
| September | 30,550 | 5,130 | 10,919 | | 1.39 | 1.25 |
| October | 13,380 | 4,190 | 6,563 | | .86 | .75 |
| November | 8,305 | 3,980 | 4,637 | | .59 | .53 |
| December | 52,535 | 4,400 | 14,865 | | 1.96 | 1.70 |
| The year | 85,200 | 3,420 | 13,763 | | 21.53 | 1.58 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT NEAL, N. C.
[Drainage area, 8,717 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1902. | | | | | |
| January | 80,800 | 6,705 | 21,294 | 2.44 | 2.81 |
| February | 50,202 | 7,800 | 20,529 | 2.36 | 2.46 |
| March | 67,250 | 9,390 | 26,139 | 3.00 | 3.46 |
| April | 25,910 | 6,705 | 13,258 | 1.52 | 1.70 |
| May | 11,300 | 5,130 | 7,965 | .91 | 1.05 |
| June | 28,650 | 3,420 | 7,493 | .86 | .96 |
| July | 6,515 | 2,375 | 3,916 | .45 | .52 |
| August 1 to 12 and 20 to 31* | | | *3,833 | *.44 | *.39 |
| September | 5,910 | 2,720 | 3,703 | .42 | .47 |
| October | 39,075 | 3,910 | 11,793 | 1.35 | 1.56 |
| November | 15,430 | 4,050 | 6,795 | .78 | .87 |
| December | 37,975 | 8,050 | 18,288 | 2.10 | 2.42 |
| 1903. | | | | | |
| January | 56,277 | 8,412 | 20,798 | 2.39 | 2.76 |
| February | 76,400 | 11,650 | 33,081 | 3.79 | 3.95 |
| March | 84,800 | 12,730 | 32,985 | 3.78 | 4.36 |
| April | 48,493 | 21,575 | 33,880 | 3.89 | 4.34 |
| May 1-30 | 26,390 | 6,705 | 10,676 | 1.22 | 1.36 |

*Partial month.

ROANOKE RIVER AT CLARKSVILLE, VA.

This station was located about 1,000 feet above the junction of Roanoke and Dan rivers, at the Southern Railway bridge which crosses both streams.

A station was also maintained on Dan River at the same time.

A flood channel above connecting the two streams, and the fact that the stations were so near the junction that either gage was liable to be affected by back water from the other river, makes the estimated discharge somewhat uncertain.

Both stations were abandoned in 1898.

DISCHARGE MEASUREMENTS OF ROANOKE RIVER, ABOVE JUNCTION WITH DAN, AT CLARKSVILLE, VA.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1895. | | | | | |
| Oct. 3 | C. C. Babb | 550 | 0.97 | —0.07 | 533 |
| Oct. 28 | ----do | 659 | 1.31 | 0.28 | 861 |
| Dec. 5 | ----do | 917 | 1.25 | 0.61 | 1,151 |
| 1896. | | | | | |
| Apr. 22 | E. W. Myers | 1,256 | 1.58 | 3.43 | 1,971 |
| May 26 | ----do | 1,401 | 1.39 | 3.20 | 1,956 |
| July 15 | ----do | 1,890 | 2.25 | 4.70 | 4,252 |
| Sept. 15 | A. P. Davis | 723 | 1.03 | 2.00 | 748 |
| 1897. | | | | | |
| Feb. 25 | E. W. Myers | 7,250 | 4.03 | 11.95 | 29,260 |
| Mar. 18 | ----do | 2,838 | 2.93 | 3.67 | 8,326 |
| Sept. 29 | ----do | 610 | 1.25 | —0.25 | 763 |
| 1898. | | | | | |
| Feb. 26 | E. W. Myers | 992 | 1.97 | 0.70 | 1,969 |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT CLARKSVILLE, VA., FOR 1896.

| Day. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 8.94 | 2.09 | 0.69 | 0.49 | 0.39 | —0.11 | 7.45 | 0.44 | 3.01 |
| 2 | | | 9.84 | 3.14 | .64 | .39 | .34 | — .11 | 8.50 | .49 | 4.31 |
| 3 | | | 8.99 | 3.89 | .54 | .34 | .29 | — .01 | 2.96 | .51 | 3.14 |
| 4 | | | 5.24 | 2.94 | .44 | .29 | .24 | + .84 | 1.20 | .94 | 2.03 |
| 5 | | | 3.46 | 1.85 | .94 | .34 | .22 | .99 | .94 | 2.10 | 1.65 |
| 6 | | | 2.84 | 1.73 | 1.59 | .49 | .19 | .44 | .79 | 6.42 | 1.53 |
| 7 | 8.42 | | 2.79 | 1.59 | 1.44 | 4.54 | .17 | 2.47 | .72 | 2.37 | 1.45 |
| 8 | 6.89 | | 2.44 | 1.44 | .94 | 6.84 | .14 | 1.30 | .64 | 1.95 | 1.37 |
| 9 | 5.16 | | 2.24 | 1.29 | .94 | 10.54 | .12 | .94 | .54 | 1.54 | 1.27 |
| 10 | 4.84 | | 1.99 | 1.19 | 1.44 | 13.94 | .12 | .44 | .49 | 1.24 | 1.19 |
| 11 | 3.85 | | 1.98 | 1.14 | 1.29 | 13.44 | .34 | .29 | .49 | 1.04 | 1.09 |
| 12 | 2.86 | | 1.97 | 1.09 | 1.19 | 8.39 | 1.12 | .09 | .44 | .94 | 1.03 |
| 13 | 2.37 | | 1.92 | 1.04 | 1.14 | 5.14 | 1.24 | .04 | .42 | 1.04 | .98 |
| 14 | 3.16 | | 1.69 | 1.01 | 1.09 | 2.74 | 1.39 | .02 | .42 | .99 | .92 |
| 15 | 2.94 | 1.37 | 1.64 | .94 | 1.09 | 2.06 | 1.44 | .04 | .49 | .98 | 1.03 |
| 16 | 2.78 | 1.33 | 1.59 | .49 | 1.07 | 1.94 | 1.64 | .04 | .44 | .95 | 1.20 |
| 17 | 2.41 | 1.92 | 1.54 | .44 | 1.04 | 1.86 | .97 | .09 | .43 | .94 | 1.63 |
| 18 | 1.86 | 2.15 | 1.49 | .49 | .94 | 1.74 | .46 | .06 | .39 | .72 | 1.35 |
| 19 | 1.68 | 2.27 | 1.44 | .59 | .84 | 1.64 | .20 | .04 | .34 | .69 | 1.20 |
| 20 | 1.53 | 3.56 | 1.39 | 1.09 | .79 | 1.44 | .14 | .16 | .34 | .66 | 1.13 |
| 21 | 1.38 | 3.99 | 1.32 | 1.65 | .94 | 1.32 | .12 | .40 | .32 | .63 | 1.07 |
| 22 | 1.33 | 2.79 | 1.37 | 2.59 | 1.04 | 1.26 | .09 | .96 | .29 | .63 | .99 |
| 23 | 1.43 | 2.19 | 1.37 | 3.84 | 1.19 | 1.27 | .09 | 1.24 | .36 | .62 | .92 |
| 24 | 1.56 | 1.96 | 1.29 | 2.64 | 1.94 | 1.04 | .09 | .19 | .39 | .61 | .86 |
| 25 | 1.64 | 2.19 | 1.37 | 1.64 | 2.49 | .89 | .06 | .04 | .44 | .60 | .82 |
| 26 | 1.54 | 2.27 | 1.94 | .97 | 2.94 | .82 | .14 | — .01 | .41 | .59 | .78 |
| 27 | 1.43 | 1.96 | 1.86 | 1.79 | 3.14 | .64 | .24 | —1.06 | .39 | .58 | .76 |
| 28 | 1.46 | 1.72 | 1.47 | 2.44 | 1.14 | .59 | .09 | — .08 | .39 | .57 | .74 |
| 29 | 1.54 | 1.73 | 1.37 | 1.79 | .49 | .54 | .04 | +1.20 | .39 | .79 | .71 |
| 30 | | 2.86 | 1.24 | 1.29 | — .01 | .49 | — .06 | 4.99 | .38 | 1.50 | .69 |
| 31 | | 7.36 | | .74 | | .44 | — .11 | | .41 | | .69 |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT CLARKSVILLE, VA., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.75 | 3.60 | 2.25 | 1.60 | 1.15 | 1.00 | ------- | 0.35 | 0.30 | —0.31 | 1.00 | 2.20 |
| 2 | 2.75 | 4.10 | 2.12 | 1.55 | 2.48 | .98 | ------- | .31 | .20 | — .31 | 1.50 | 1.85 |
| 3 | 2.74 | 4.92 | 2.05 | 1.60 | 4.72 | .96 | ------- | .28 | .00 | — .35 | 2.12 | 1.63 |
| 4 | 2.74 | 3.55 | 1.93 | 1.70 | 4.30 | 1.03 | 0.65 | .20 | .00 | — .40 | 1.55 | 1.47 |
| 5 | 2.75 | 2.68 | 2.85 | 1.92 | 2.70 | 1.11 | .60 | .14 | .00 | — .45 | .95 | 1.30 |
| 6 | 2.77 | 3.23 | 4.02 | 2.52 | 2.52 | 1.09 | .57 | .10 | .00 | — .48 | .78 | 1.18 |
| 7 | 2.75 | 6.05 | 4.20 | 2.75 | 3.10 | 1.06 | .54 | .08 | .00 | — .52 | .59 | 1.02 |
| 8 | 2.71 | 11.85 | 4.05 | 2.95 | 2.98 | 1.05 | .51 | .08 | .00 | — .58 | .43 | .84 |
| 9 | 2.68 | 8.85 | 3.85 | 2.72 | 2.60 | 1.05 | .66 | .09 | .00 | — .65 | .25 | .70 |
| 10 | 2.65 | 4.25 | 3.35 | 3.55 | 2.28 | 1.02 | .59 | .40 | .00 | — .40 | .12 | .52 |
| 11 | 2.62 | 2.58 | 3.45 | 3.15 | 2.85 | 1.98 | .48 | .46 | .00 | + .40 | .05 | .40 |
| 12 | 2.60 | 2.20 | 4.20 | 2.85 | 3.45 | 1.96 | .34 | .31 | .00 | .60 | .02 | .37 |
| 13 | 2.58 | 3.50 | 4.35 | 2.53 | 3.73 | ------- | 1.15 | .29 | .00 | 1.55 | — .05 | .35 |
| 14 | 2.65 | 2.85 | 5.15 | 2.30 | 4.43 | ------- | .80 | .20 | .00 | .66 | — .10 | .37 |
| 15 | 2.68 | 2.55 | 4.37 | 2.05 | 4.72 | ------- | .61 | .14 | .00 | .60 | — .20 | .52 |
| 16 | 2.65 | 3.15 | 3.60 | 1.75 | 4.10 | ------- | .50 | .20 | .00 | .53 | — .24 | .57 |
| 17 | 2.68 | 3.70 | 2.97 | 1.46 | 3.65 | ------- | .40 | .28 | .00 | 1.05 | — .30 | .65 |
| 18 | 3.51 | 2.90 | 3.78 | 1.45 | 3.28 | ------- | .48 | .40 | .00 | 1.33 | — .38 | 1.00 |
| 19 | 4.47 | 2.35 | 3.40 | 1.38 | 2.75 | ------- | 1.43 | .59 | .00 | 1.79 | — .10 | 1.02 |
| 20 | 5.07 | 2.85 | 3.15 | 1.33 | 2.58 | ------- | 1.35 | .65 | .00 | 2.30 | — .13 | .72 |
| 21 | 4.52 | 2.90 | 2.90 | 1.28 | 1.70 | ------- | 1.65 | .71 | .00 | 1.00 | — .13 | 1.25 |
| 22 | 3.66 | 6.07 | 2.77 | 1.20 | 1.57 | ------- | 1.15 | .34 | .00 | .25 | — .14 | 1.85 |
| 23 | 3.06 | 7.75 | 2.50 | 1.15 | 1.33 | ------- | .87 | .48 | .00 | .60 | — .16 | 4.50 |
| 24 | 2.85 | 10.70 | 2.30 | 1.15 | 1.29 | ------- | .84 | .40 | .00 | .30 | — .20 | 2.88 |
| 25 | 1.74 | 12.04 | 2.05 | 1.15 | 1.26 | ------- | .51 | .30 | .00 | .07 | — .05 | 2.08 |
| 26 | 1.54 | 3.05 | 1.98 | 1.12 | 1.21 | ------- | .46 | .16 | .00 | .28 | — .02 | 1.68 |
| 27 | 1.24 | 2.65 | 1.83 | 1.08 | 1.18 | ------- | .34 | .09 | .05 | .62 | + .17 | 1.35 |
| 28 | .83 | 2.35 | 1.80 | 1.05 | 1.13 | ------- | .32 | .07 | .00 | 1.85 | 1.33 | 1.05 |
| 29 | 1.14 | ------- | 1.72 | 1.01 | 1.05 | ------- | .78 | .80 | — .25 | 2.40 | 4.70 | .80 |
| 30 | 1.24 | ------- | 1.68 | .95 | 1.02 | ------- | .58 | .80 | — .28 | 1.33 | 2.77 | .70 |
| 31 | 2.85 | ------- | 1.65 | ------- | 1.00 | ------- | .45 | .50 | ------- | 1.30 | ------- | .57 |

June 13 to July 3 no reports; repairing bridge.

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT CLARKSVILLE, VA., FOR 1898.*

| Day. | Jan. | Feb. | Day. | Jan. | Feb. | Day. | Jan. | Feb. | Day. | Jan. | Feb. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | 0.49 | 9 | 0.60 | 0.51 | 17 | 0.48 | 0.27 | 25 | 2.10 | 0.74 |
| 2 | .43 | .40 | 10 | .42 | .65 | 18 | 1.05 | .25 | 26 | 3.25 | .65 |
| 3 | .39 | .43 | 11 | .38 | .60 | 19 | .70 | .33 | 27 | 2.08 | ------- |
| 4 | .50 | .39 | 12 | .69 | .54 | 20 | .65 | .33 | 28 | 1.63 | ------- |
| 5 | .65 | .33 | 13 | .50 | .51 | 21 | .42 | .43 | 29 | 1.25 | ------- |
| 6 | .70 | .27 | 14 | .50 | .49 | 22 | .47 | .48 | 30 | .88 | ------- |
| 7 | .71 | .35 | 15 | .38 | .38 | 23 | .43 | .54 | 31 | .65 | ------- |
| 8 | .71 | .48 | 16 | .39 | .34 | 24 | .65 | .65 | | | |

*Station discontinued February 26.

RATING TABLE FOR ROANOKE RIVER AT CLARKSVILLE, VA., FOR 1896-1897.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1896. | | | | | | | |
| 0.00 | 685 | 1.40 | 2,095 | 5.00 | 10,100 | 8.60 | 20,200 |
| —0.10 | 630 | 1.60 | 2,395 | 5.20 | 10,650 | 8.80 | 20,800 |
| —0.20 | 580 | 1.80 | 2,715 | 5.40 | 11,200 | 9.00 | 21,400 |
| —0.30 | 535 | 2.00 | 3,050 | 5.60 | 11,750 | 9.20 | 22,000 |
| —0.40 | 500 | 2.20 | 3,395 | 5.80 | 12,300 | 9.40 | 22,600 |
| —0.50 | 470 | 2.40 | 3,760 | 6.00 | 12,850 | 9.60 | 23,200 |
| —0.60 | 440 | 2.60 | 4,150 | 6.20 | 13,400 | 9.80 | 23,800 |
| —0.70 | 410 | 2.80 | 4,600 | 6.40 | 13,950 | 10.00 | 24,400 |
| —0.80 | 380 | 3.00 | 5,100 | 6.60 | 14,500 | 10.20 | 25,000 |
| —0.90 | 350 | 3.20 | 5,600 | 6.80 | 15,050 | 10.40 | 25,600 |
| —1.00 | 330 | 3.40 | 6,100 | 7.00 | 15,600 | 10.60 | 26,200 |
| 0.00 | 685 | 3.60 | 6,600 | 7.20 | 16,180 | 10.80 | 26,800 |
| 0.20 | 820 | 3.80 | 7,100 | 7.40 | 16,660 | 11.00 | 27,400 |
| 0.40 | 980 | 4.00 | 7,600 | 7.60 | 17,240 | 11.20 | 28,000 |
| 0.60 | 1,160 | 4.20 | 8,100 | 7.80 | 17,820 | 11.40 | 28,600 |
| 0.80 | 1,350 | 4.40 | 8,600 | 8.00 | 18,400 | 11.60 | 29,200 |
| 1.00 | 1,560 | 4.60 | 9,100 | 8.20 | 19,000 | 11.80 | 29,800 |
| 1.20 | 1,810 | 4.80 | 9,600 | 8.40 | 19,600 | 12.00 | 30,400 |
| 1897. | | | | | | | |
| —0.70 | 540 | 1.80 | 3,496 | 5.00 | 11,560 | 8.20 | 19,624 |
| —0.60 | 560 | 2.00 | 4,000 | 5.20 | 12,064 | 8.40 | 20,128 |
| —0.50 | 580 | 2.20 | 4,504 | 5.40 | 12,568 | 8.60 | 20,632 |
| —0.40 | 600 | 2.40 | 5,008 | 5.60 | 13,072 | 8.80 | 21,136 |
| —0.30 | 625 | 2.60 | 5,512 | 5.80 | 13,576 | 9.00 | 21,640 |
| —0.20 | 650 | 2.80 | 6,016 | 6.00 | 14,080 | 9.50 | 22,900 |
| —0.10 | 675 | 3.00 | 6,520 | 6.20 | 14,584 | 10.00 | 24,160 |
| 0.00 | 700 | 3.20 | 7,024 | 6.40 | 15,088 | 10.50 | 25,420 |
| 0.20 | 800 | 3.40 | 7,528 | 6.60 | 15,592 | 11.00 | 26,680 |
| 0.40 | 1,000 | 3.60 | 8,032 | 6.80 | 16,096 | 11.50 | 27,940 |
| 0.60 | 1,220 | 3.80 | 8,536 | 7.00 | 16,600 | 12.00 | 29,200 |
| 0.80 | 1,470 | 4.00 | 9,040 | 7.20 | 17,104 | 12.50 | 30,460 |
| 1.00 | 1,760 | 4.20 | 9,544 | 7.40 | 17,608 | 13.00 | 31,720 |
| 1.20 | 2,100 | 4.40 | 10,048 | 7.60 | 18,112 | 13.50 | 32,980 |
| 1.40 | 2,530 | 4.60 | 10,552 | 7.80 | 18,616 | 14.00 | 34,240 |
| 1.60 | 2,992 | 4.80 | 11,056 | 8.00 | 19,120 | 14.50 | 35,500 |

ROANOKE RIVER AT RANDOLPH, VA.

This station was originally established August 27, 1900. It is located on the railroad bridge about five-eighths of a mile southwest of the Southern Railway station at Randolph.

The channel is straight for a considerable distance above and below the station and has a width at ordinary stages of about 400 feet, broken by one bridge pier. The bed is composed mainly of firm material and is quite permanent. The current is moderately rapid and has a well-distributed velocity. During flood stages the river flows under the four spans of the bridge and also through two flood channels through the railroad embankment between the bridge and Randolph station.

Discharge measurements are made from the bridge to which the gage is attached. The bridge makes an angle of about 73° with the direction of the current. The initial point for soundings is the end of the guard rail, left abutment.

During the summer of 1902 the bridge to which the gage was attached was replaced by a new one, a temporary gage, set by the observer, being used during the construction work; datum of temporary gage not known. On October 13, 1902, a new wire gage was installed. The gage heights before and after this date indicate that the datum was raised approximately 2.00 feet. The present gage, which was installed May 20, 1903, is a standard chain gage and occupies practically the same position as the wire gage which it replaced. It is attached to the upstream guard rail in the middle of the second span from the left bank. The datum is the same as that of the gage which it replaced. The length of the chain from the end of the weight to the marker is 43.13 feet. The gage is read once daily by J. E. Figg, the station agent. Bench mark No. 1 is the top of the floor beam nearest the zero of the gage scale, at a point 0.2 foot downstream from the adjacent tie. Its elevation is 41.97 feet above gage datum. Bench mark No. 2 is a copper bolt set in the capstone on the downstream side of the left abutment, about 3 feet from the end of the ties. Its elevation is 36.99 feet above gage datum.

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT CLARKSVILLE, VA.

[Drainage area, 3,450 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| February | 19,660 | 1,852 | 4,554 | 261,946 | 1.42 | 1.32 |
| March | 16,554 | 1,852 | 3,084 | 189,635 | 1.02 | 0.89 |
| April | 23,890 | 1,732 | 3,990 | 237,405 | 1.28 | 1.15 |
| May | 7,325 | 916 | 2,240 | 137,737 | 0.75 | 0.65 |
| June | 5,450 | 680 | 1,608 | 95,682 | 0.52 | 0.46 |
| July | *36,000 | 823 | 3,611 | 222,040 | 1.20 | 1.04 |
| August | 2,459 | 635 | 860 | 52,881 | 0.28 | 0.24 |
| September | 3,899 | 645 | 1,150 | 68,425 | 0.37 | 0.33 |
| October | 19,900 | 892 | 1,620 | 99,614 | 0.54 | 0.47 |
| November | 14,005 | 1,023 | 1,979 | 117,850 | 0.63 | 0.57 |
| December | 5,125 | 1,245 | 2,008 | 123,472 | 0.67 | 0.58 |
| 1897. | | | | | | |
| January | 11,686 | 1,540 | 5,773 | 354,970 | 1.88 | 1.63 |
| February | 29,326 | 4,504 | 10,593 | 588,306 | 3.11 | 2.99 |
| March | 11,938 | 3,118 | 6,459 | 397,150 | 2.10 | 1.82 |
| April | 7,906 | 1,685 | 3,584 | 213,265 | 1.13 | 1.01 |
| May | 10,804 | 1,760 | 5,367 | 330,004 | 1.74 | 1.51 |
| June | * 8,410 | *1,220 | * 2,301 | 136,920 | 0.72 | 0.65 |
| July | 3,118 | 900 | 1,378 | 84,730 | 0.45 | 0.39 |
| August | 1,470 | 720 | 983 | 60,442 | 0.32 | 0.28 |
| September | 900 | 625 | 705 | 41,951 | 0.22 | 0.20 |
| October | 5,008 | 550 | 1,540 | 94,691 | 0.49 | 0.43 |
| November | 10,804 | 600 | 1,640 | 97,587 | 0.52 | 0.46 |
| December | 10,300 | 950 | 2,401 | 147,631 | 0.78 | 0.68 |
| The year | 29,326 | 550 | 3,560 | 2,547,647 | 13.46 | 1.00 |

*Approximate.

DISCHARGE MEASUREMENTS OF ROANOKE RIVER AT RANDOLPH, VA.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1900. | | | | | |
| Aug. 27 | E. W. Myers | 573 | 2.35 | 1.00 | 1,349 |
| Oct. 31 | ----do | 915 | 2.52 | 2.75 | 2,304 |
| 1901. | | | | | |
| Jan. 15 | E. Graves | 1,975 | 3.11 | *7.10 | 6,153 |
| Mar. 29 | E. W. Myers | 1,782 | 2.85 | 7.17 | 5,091 |
| April 23 | N. C. Curtis | 3,179 | 3.85 | 11.25 | 12,260 |
| May 23 | E. Graves | 14,000 | 4.15 | †28.20 | 58,000 |
| July 19 | N. C. Curtis | 3,791 | 3.94 | 14.10 | 14,950 |
| July 25 | E. W. Myers | 1,276 | 3.05 | *4.07 | 3,896 |
| 1902. | | | | | |
| Aug. 15 | B. S. Drane | 928 | 2.49 | *4.05 | 2,312 |
| Oct. 13 | ----do | 2,214 | 2.80 | 9.15 | 6,203 |
| Dec. 5 | ----do | 3,277 | 3.33 | 13.47 | 10,920 |
| 1903. | | | | | |
| Mar. 27 | E. C. Murphy | 2,454 | 3.21 | *10.45 | 7,877 |
| May 20 | E. W. Myers | 1,068 | 2.83 | 5.19 | 3,025 |
| June 24 | ----do | 1,012 | 2.49 | 5.32 | 2,520 |
| June 24 | ----do | 1,010 | 2.46 | 5.29 | 2,490 |
| Aug. 8 | B. S. Drane | 865 | 2.57 | 4.59 | 2,220 |
| Aug. 28 | ----do | 642 | 2.26 | 3.62 | 1,451 |
| Aug. 28 | ----do | 652 | 2.25 | 3.61 | 1,468 |
| Sept. 25 | Paul & Sawyer | 772 | 2.43 | 4.20 | 1,877 |
| Dec. 3 | W. C. Sawyer | 696 | 2.11 | 3.82 | 1,466 |
| 1904. | | | | | |
| June 22 | F. H. Brundage | 865 | 2.37 | 4.47 | 2,049 |
| Sept. 27 | R. H. Bolster | 468 | 1.68 | 2.70 | 787 |
| Oct. 22 | ----do | 517 | 1.59 | 2.92 | 822 |
| 1905. | | | | | |
| Mar. 11 | A. H. Horton | 2,580 | 3.19 | 11.18 | 8,233 |
| July 23 | Grover and Horton | 1,601 | 3.01 | 7.58 | 4,820 |
| Sept. 7 | R. H. Bolster | 1,070 | 2.36 | 5.43 | 2,520 |
| 1906. | | | | | |
| Jan. 8 | | 735 | ---------- | 4.20 | 1,440 |

*Gage height doubtful.

†30.2 as used for 1903 to 1905 rating table on account of a difference of approximately 2.0 feet between the 1901 and 1903 datums.

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1900.

| Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 1.30 | 2.60 | 3.70 | 17 | 6.90 | 2.05 | 2.30 | 3.00 |
| 2 | 1.00 | 1.35 | 2.50 | 3.30 | 18 | 3.30 | 1.70 | 2.30 | 3.00 |
| 3 | .75 | 1.60 | 2.80 | 3.05 | 19 | 2.05 | 1.50 | 2.25 | 3.00 |
| 4 | .70 | 1.50 | 4.40 | 4.75 | 20 | 1.60 | 1.45 | 2.30 | 3.05 |
| 5 | .75 | 1.55 | 4.60 | 15.50 | 21 | 1.35 | 1.40 | 2.30 | 3.15 |
| 6 | 2.00 | 2.00 | 4.00 | 10.50 | 22 | 1.30 | 1.35 | 2.35 | 3.50 |
| 7 | 1.00 | 1.80 | 3.45 | 6.75 | 23 | 1.40 | 1.50 | 2.30 | 3.70 |
| 8 | .80 | 1.60 | 3.10 | 5.50 | 24 | 1.35 | 6.00 | 2.25 | 5.70 |
| 9 | .70 | 1.80 | 2.95 | 4.80 | 25 | 2.50 | 15.15 | 2.25 | 4.80 |
| 10 | .50 | 2.00 | 2.75 | 4.35 | 26 | 2.00 | 6.10 | 3.10 | 4.00 |
| 11 | .50 | 1.65 | 2.60 | 4.00 | 27 | 1.50 | 4.50 | 12.40 | 3.80 |
| 12 | .40 | 1.00 | 2.55 | 3.75 | 28 | 1.40 | 3.70 | 6.50 | 3.50 |
| 13 | .30 | 1.50 | 2.55 | 3.60 | 29 | 1.55 | 3.30 | 4.75 | 3.50 |
| 14 | .30 | 1.55 | 2.50 | 3.40 | 30 | 1.40 | 3.00 | 4.00 | 3.30 |
| 15 | 1.00 | 2.05 | 2.45 | 3.30 | 31 | -------- | 2.75 | -------- | 3.95 |
| 16 | 9.10 | 2.50 | 2.35 | 3.20 | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1901-1902.

| 1901. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 3.95 | 3.55 | 2.90 | 4.60 | 4.90 | 6.30 | 5.50 | 3.40 | 6.10 | 5.90 | 3.35 | 3.40 |
| 2 | 3.75 | 3.30 | 2.85 | 4.50 | 4.70 | 5.70 | 5.15 | 3.35 | 6.00 | 5.20 | 3.35 | 3.40 |
| 3 | 3.40 | 3.40 | 2.85 | 19.00 | 4.50 | 5.20 | 5.00 | 3.25 | 5.40 | 4.70 | 3.35 | 4.20 |
| 4 | 3.20 | 4.30 | 2.85 | 22.60 | 4.35 | 5.00 | 4.20 | 3.10 | 5.10 | 4.30 | 3.35 | 6.10 |
| 5 | 3.00 | 4.70 | 2.80 | 13.00 | 4.15 | 4.90 | 3.80 | 3.70 | 4.80 | 4.00 | 3.35 | 6.20 |
| 6 | 3.10 | 4.30 | 2.80 | 8.50 | 4.10 | 4.70 | 4.80 | 14.40 | 4.70 | 3.90 | 3.30 | 4.90 |
| 7 | 3.10 | 3.80 | 2.75 | 7.40 | 4.00 | 5.30 | 5.50 | 22.60 | 4.50 | 3.75 | 3.30 | 4.00 |
| 8 | 3.10 | 3.70 | 2.70 | 6.30 | 4.10 | 6.20 | 4.30 | 24.80 | 4.40 | 3.75 | 3.30 | 3.80 |
| 9 | 3.05 | 4.15 | 2.90 | 5.60 | 5.00 | 5.70 | 4.30 | 11.30 | 4.30 | 3.70 | 3.30 | 3.70 |
| 10 | 3.05 | 4.40 | 3.65 | 5.10 | 6.00 | 5.10 | 3.90 | 6.80 | 4.10 | 3.65 | 3.30 | 3.90 |
| 11 | 4.00 | 4.30 | 4.10 | 4.70 | 6.70 | 4.30 | 3.30 | 6.60 | 4.00 | 3.65 | 3.30 | 4.50 |
| 12 | 19.40 | 4.00 | 8.00 | 4.40 | 5.55 | 4.10 | 3.20 | 8.10 | 4.00 | 3.65 | 3.30 | 4.30 |
| 13 | 22.30 | 3.75 | 6.00 | 4.35 | 4.55 | 3.80 | 4.20 | 13.60 | 3.90 | 7.50 | 3.40 | 4.00 |
| 14 | 10.40 | 3.50 | 4.80 | 9.20 | 4.00 | 4.00 | 6.30 | 8.70 | 3.90 | 6.40 | 3.35 | 3.80 |
| 15 | 7.10 | 3.40 | 4.25 | 12.60 | 3.80 | 3.95 | 19.20 | 22.00 | 3.80 | 4.80 | 3.30 | 9.00 |
| 16 | 6.00 | 3.55 | 3.85 | 9.20 | 3.65 | 3.90 | 18.70 | 24.00 | 3.70 | 4.00 | 3.30 | 19.50 |
| 17 | 5.60 | 3.40 | 3.60 | 6.70 | 3.60 | 10.00 | 9.90 | 8.00 | 5.20 | 3.70 | 3.25 | 10.00 |
| 18 | 5.15 | 3.40 | 3.40 | 5.80 | 3.80 | 8.50 | 8.20 | 14.60 | 7.70 | 3.60 | 3.30 | 6.80 |
| 19 | 4.60 | 3.35 | 3.30 | 5.30 | 3.75 | 6.50 | 14.15 | 11.60 | 7.40 | 3.50 | 3.30 | 5.50 |
| 20 | 4.05 | 3.30 | 3.20 | 9.80 | 4.10 | 5.60 | 11.40 | 9.10 | 5.30 | 3.50 | 3.30 | 5.10 |
| 21 | 4.00 | 3.10 | 3.55 | 19.60 | 5.50 | 5.60 | 7.50 | 7.60 | 4.50 | 3.45 | 3.25 | 4.60 |
| 22 | 3.95 | 2.95 | 4.75 | 19.75 | 22.00 | 6.70 | 6.10 | 6.10 | 4.20 | 3.45 | 3.25 | 4.30 |
| 23 | 4.00 | 2.95 | 4.05 | 11.30 | 28.20 | 5.40 | 5.40 | 6.60 | 3.90 | 3.45 | 3.90 | 4.40 |
| 24 | 3.90 | 2.80 | 3.55 | 8.70 | 22.00 | 5.20 | 4.85 | 8.70 | 3.90 | 3.40 | 5.20 | 4.50 |
| 25 | 4.00 | 2.80 | 3.60 | 7.80 | 9.80 | 5.90 | 4.50 | 10.10 | 3.80 | 3.35 | 6.20 | 5.20 |
| 26 | 3.90 | 2.90 | 7.70 | 6.85 | 9.10 | 5.00 | 4.20 | 9.40 | 3.70 | 3.35 | 4.70 | 6.20 |
| 27 | 3.60 | 2.95 | 13.50 | 6.30 | 9.65 | 8.30 | 4.15 | 19.00 | 3.50 | 3.35 | 4.00 | 8.70 |
| 28 | 3.55 | 3.00 | 9.60 | 5.80 | 12.80 | 6.20 | 4.60 | 20.00 | 3.10 | 3.35 | 3.60 | 8.90 |
| 29 | 3.50 | ------- | 6.70 | 5.40 | 11.00 | 4.65 | 3.80 | 9.00 | 6.70 | 3.35 | 3.50 | 13.20 |
| 30 | 3.40 | ------- | 5.50 | 5.10 | 8.30 | 6.15 | 3.60 | 7.70 | 7.30 | 3.35 | 3.40 | 32.00 |
| 31 | 3.55 | ------- | 4.90 | ------- | 7.00 | ------- | 3.40 | 6.80 | ------- | 3.35 | ------ | 28.00 |
| 1902. | | | | | | | | | | | | |
| 1 | 19.00 | 10.20 | 23.70 | 7.50 | 5.50 | 3.90 | 5.10 | 3.70 | 2.30 | 4.20 | 4.20 | 9.00 |
| 2 | 10.50 | 12.50 | 21.20 | 6.80 | 5.10 | 3.90 | 5.00 | 5.10 | 2.30 | 4.00 | 4.00 | 11.50 |
| 3 | 8.90 | 17.50 | 14.20 | 6.30 | 6.40 | 3.90 | 4.20 | 4.40 | 3.20 | 3.70 | 3.85 | 16.00 |
| 4 | 7.90 | 11.50 | 9.90 | 5.90 | 7.00 | 3.80 | 3.80 | 3.90 | 3.00 | 3.70 | 3.80 | 13.40 |
| 5 | 6.90 | 7.90 | 10.60 | 6.00 | 5.50 | 3.85 | 3.70 | 3.50 | 3.70 | 8.60 | 3.80 | 13.70 |
| 6 | 6.10 | 6.40 | 10.90 | 6.50 | 5.40 | 3.70 | 3.50 | 3.90 | 3.30 | 23.00 | 3.80 | 15.05 |
| 7 | 6.00 | 6.00 | 8.70 | 5.80 | 5.30 | 3.60 | 5.30 | 4.30 | 3.00 | 20.00 | 4.10 | 10.20 |
| 8 | 6.05 | 6.20 | 8.00 | 10.30 | 6.70 | 3.90 | 4.80 | 3.80 | 2.60 | 5.60 | 4.10 | 8.00 |
| 9 | 5.90 | 5.70 | 8.30 | 11.20 | 6.00 | 3.90 | 4.30 | 3.80 | 4.00 | 5.10 | 4.10 | 6.90 |
| 10 | 5.80 | 5.00 | 8.40 | 8.40 | 5.50 | 3.70 | 4.55 | 3.50 | 3.00 | 4.50 | 3.80 | 6.10 |
| 11 | 5.70 | 4.95 | 7.70 | 7.10 | 5.20 | 3.60 | 4.60 | 3.90 | 3.40 | 5.00 | 3.75 | 5.80 |
| 12 | 5.50 | 4.90 | 7.30 | 6.60 | 4.80 | 3.50 | 3.60 | 3.30 | 3.00 | 10.00 | 3.70 | 5.55 |
| 13 | 4.90 | 4.90 | 6.90 | 6.20 | 4.80 | 3.40 | 3.40 | 3.05 | 2.70 | 8.80 | 3.70 | 6.20 |
| 14 | 4.50 | 4.90 | 6.60 | 6.00 | 4.70 | 3.50 | 3.10 | 3.60 | 2.50 | 6.00 | 3.65 | 6.40 |
| 15 | 4.50 | 4.90 | 6.30 | 6.10 | 4.70 | 6.00 | 3.00 | 3.80 | 2.50 | 5.20 | 3.65 | 6.20 |
| 16 | 4.90 | 4.85 | 6.80 | 5.90 | 4.60 | 11.10 | 2.80 | 7.40 | 2.50 | 4.70 | 3.60 | 6.50 |
| 17 | 4.90 | 4.90 | 14.30 | 5.80 | 4.50 | 18.30 | 2.60 | 4.30 | 2.50 | 4.40 | 3.50 | 9.20 |
| 18 | 4.80 | 4.80 | 10.30 | 5.60 | 5.00 | 8.10 | 2.50 | 3.70 | 2.50 | 4.20 | 3.60 | 10.60 |
| 19 | 4.75 | 4.60 | 8.30 | 5.50 | 4.70 | 5.60 | 2.50 | 3.30 | 2.50 | 4.10 | 5.10 | 8.10 |
| 20 | 4.70 | 4.70 | 7.30 | 5.40 | 4.65 | 4.70 | 2.60 | 2.70 | 2.50 | 3.90 | 5.00 | 7.00 |
| 21 | 5.20 | 5.10 | 6.75 | 5.30 | 4.70 | 4.50 | 2.80 | 2.70 | 2.50 | 3.80 | 5.40 | 6.40 |
| 22 | 8.50 | 9.00 | 6.40 | 5.20 | 4.70 | 4.10 | 3.50 | 2.70 | 2.80 | 3.75 | 5.00 | 8.00 |
| 23 | 8.50 | 9.50 | 6.20 | 5.15 | 4.75 | 4.00 | 3.00 | 2.70 | 2.80 | 3.70 | 4.50 | 8.00 |
| 24 | 6.50 | 11.50 | 6.00 | 5.10 | 4.75 | 3.90 | 2.80 | 2.50 | 2.70 | 3.70 | 4.30 | 7.00 |
| 25 | 5.40 | 19.20 | 5.80 | 5.00 | 5.60 | 3.80 | 2.70 | 2.40 | 2.70 | 3.65 | 6.00 | 6.30 |
| 26 | 5.40 | 26.50 | 5.65 | 4.90 | 4.70 | 4.20 | 2.60 | 2.50 | 2.70 | 3.60 | 11.00 | 5.85 |
| 27 | 7.60 | 24.00 | 5.50 | 4.90 | 4.60 | 4.50 | 2.60 | 3.30 | 4.10 | 3.60 | 11.40 | 5.20 |
| 28 | 10.20 | 20.20 | 5.50 | 4.80 | 4.40 | 4.60 | 2.50 | 2.70 | 4.40 | 8.10 | 8.10 | 4.90 |
| 29 | 10.20 | ------- | 10.60 | 6.90 | 4.20 | 4.50 | 2.50 | 3.30 | 3.40 | 6.70 | 7.00 | 4.70 |
| 30 | 7.70 | ------- | 12.20 | 6.50 | 4.10 | 5.60 | 2.40 | 2.70 | 3.00 | 5.00 | 7.00 | 5.50 |
| 31 | 7.70 | ------- | 9.00 | ------- | 4.00 | ------- | 3.90 | 2.50 | ------- | 4.40 | ------ | 5.40 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1903-1904.

| 1903. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.10 | 7.70 | 18.80 | 15.70 | 7.40 | 6.60 | 7.90 | 4.40 | 10.60 | 4.10 | 4.10 | 3.80 |
| 2 | 5.60 | 6.90 | 12.30 | 11.30 | 7.00 | 6.40 | 6.80 | 4.70 | 9.10 | 3.90 | 4.30 | 3.90 |
| 3 | 19.90 | 6.55 | 9.20 | 9.70 | 7.00 | 6.10 | 6.30 | 5.10 | 5.70 | 3.80 | 4.20 | 3.80 |
| 4 | 18.00 | 10.70 | 8.60 | 10.90 | 7.00 | 5.90 | 5.90 | 5.30 | 4.50 | 3.70 | 4.50 | 3.90 |
| 5 | 16.00 | 13.60 | 7.80 | 10.20 | 6.90 | 6.40 | 5.70 | 5.10 | 4.30 | 3.90 | 4.80 | 4.10 |
| 6 | 11.20 | 11.10 | 7.50 | 8.90 | 6.70 | 6.80 | 5.50 | 4.90 | 4.40 | 4.20 | 5.00 | 4.00 |
| 7 | 9.10 | 8.30 | 7.80 | 8.40 | 6.50 | 8.90 | 5.60 | 4.70 | 4.60 | 4.80 | 4.90 | 4.20 |
| 8 | 8.20 | 8.10 | 7.90 | 13.00 | 6.40 | 11.10 | 5.30 | 4.50 | 4.50 | 6.60 | 4.60 | 4.10 |
| 9 | 7.20 | 8.10 | 9.40 | 13.40 | 6.10 | 7.60 | 5.00 | 4.30 | 4.40 | 7.30 | 4.40 | 4.40 |
| 10 | 6.60 | 7.50 | 10.20 | 11.50 | 6.10 | 8.40 | 4.70 | 4.40 | 4.20 | 6.40 | 4.10 | 4.20 |
| 11 | 7.80 | 7.70 | 9.00 | 9.10 | 6.00 | 9.40 | 4.40 | 4.20 | 4.30 | 5.60 | 3.90 | 4.00 |
| 12 | 7.60 | 13.00 | 9.40 | 8.30 | 6.00 | 6.90 | 4.60 | 4.30 | 3.80 | 5.30 | 3.80 | 4.10 |
| 13 | 6.70 | 11.00 | 9.70 | 9.60 | 5.90 | 5.60 | 4.70 | 4.40 | 4.30 | 4.90 | 3.70 | 3.90 |
| 14 | 6.00 | 8.80 | 9.40 | 13.20 | 5.90 | 5.80 | 5.20 | 4.30 | 4.60 | 4.70 | 3.90 | 4.20 |
| 15 | 5.70 | 8.00 | 8.60 | 12.80 | 5.80 | 5.70 | 5.40 | 4.20 | 5.40 | 4.90 | 4.10 | 4.10 |
| 16 | 5.80 | 8.40 | 8.00 | 11.90 | 5.60 | 5.40 | 5.30 | 4.60 | 7.80 | 5.10 | 4.20 | 3.80 |
| 17 | 5.80 | 22.60 | 7.60 | 9.80 | 5.50 | 5.50 | 5.00 | 5.00 | 8.50 | 4.80 | 4.00 | 4.20 |
| 18 | 5.80 | 26.20 | 7.20 | 8.90 | 5.40 | 5.40 | 5.10 | 5.50 | 15.30 | 4.70 | 3.90 | 4.40 |
| 19 | 5.55 | 16.80 | 6.90 | 7.40 | 5.30 | 5.10 | 4.70 | 6.30 | 7.90 | 4.60 | 3.80 | 4.60 |
| 20 | 5.20 | 10.10 | 6.75 | 7.50 | 5.20 | 4.90 | 4.20 | 5.90 | 6.80 | 4.40 | 3.90 | 4.80 |
| 21 | 7.10 | 8.90 | 9.40 | 7.35 | 5.10 | 5.00 | 4.30 | 5.60 | 6.30 | 4.30 | 4.00 | 4.60 |
| 22 | 10.70 | 8.40 | 21.80 | 7.20 | 5.20 | 5.20 | 4.50 | 5.20 | 6.10 | 4.20 | 4.10 | 4.50 |
| 23 | 9.00 | 7.80 | 24.00 | 7.40 | 5.30 | 5.00 | 4.40 | 4.90 | 5.40 | 4.00 | 4.20 | 4.60 |
| 24 | 7.50 | 7.40 | 26.30 | 7.50 | 5.50 | 5.10 | 4.20 | 4.80 | 4.90 | 3.90 | 4.40 | 4.80 |
| 25 | 6.70 | 7.10 | 22.80 | 7.70 | 5.80 | 5.20 | 4.00 | 4.50 | 4.20 | 4.10 | 4.20 | 4.90 |
| 26 | 6.30 | 6.80 | 12.90 | 7.90 | 5.70 | 6.40 | 3.90 | 4.10 | 4.00 | 4.20 | 4.10 | 4.70 |
| 27 | 6.00 | 6.50 | 10.20 | 9.00 | 5.90 | 8.10 | 3.70 | 3.80 | 4.50 | 4.10 | 4.20 | 4.60 |
| 28 | 10.30 | 11.00 | 9.40 | 11.45 | 6.20 | 11.90 | 3.80 | 3.40 | 4.60 | 4.20 | 3.90 | 4.40 |
| 29 | 13.40 | ------- | 8.60 | 9.80 | 6.40 | 10.50 | 3.90 | 3.70 | 4.30 | 4.00 | 3.80 | 4.50 |
| 30 | 10.00 | ------- | 13.40 | 8.60 | 6.50 | 9.60 | 4.00 | 12.30 | 4.00 | 3.90 | 3.70 | 4.30 |
| 31 | 8.60 | ------- | 19.30 | ------- | 6.80 | ------- | 4.20 | 11.40 | ------- | 3.80 | ------ | 4.40 |
| 1904. | | | | | | | | | | | | |
| 1 | 4.5 | 3.9 | 5.4 | 4.5 | 4.9 | 11.8 | 6.2 | 5.9 | 4.6 | 2.7 | 2.9 | 3.4 |
| 2 | 4.6 | 4.2 | 5.2 | 4.4 | 5.1 | 12.2 | 5.8 | 6.0 | 4.8 | 2.8 | 2.8 | 3.7 |
| 3 | 4.5 | 4.4 | 5.0 | 4.3 | 5.0 | 8.6 | 5.6 | 6.2 | 4.9 | 2.9 | 2.7 | 3.9 |
| 4 | 4.4 | 4.8 | 5.1 | 4.4 | 5.2 | 6.9 | 5.4 | 6.4 | 4.7 | 3.0 | 2.8 | 3.8 |
| 5 | 4.5 | 5.2 | 5.2 | 4.5 | 5.1 | 5.6 | 4.2 | 7.9 | 4.5 | 2.9 | 2.9 | 3.7 |
| 6 | 4.6 | 7.1 | 5.0 | 4.6 | 5.1 | 5.4 | 4.3 | 8.2 | 4.6 | 3.1 | 3.0 | 3.8 |
| 7 | 4.4 | 7.4 | 5.4 | 4.5 | 5.4 | 5.2 | 3.9 | 6.8 | 4.4 | 2.9 | 3.1 | 3.9 |
| 8 | 4.2 | 7.2 | 5.6 | 4.4 | 5.6 | 5.1 | 3.6 | 5.5 | 4.2 | 2.8 | 3.0 | 3.9 |
| 9 | 4.0 | 6.9 | 5.9 | 4.3 | 5.8 | 4.9 | 3.5 | 6.6 | 3.9 | 2.7 | 3.2 | 4.2 |
| 10 | 4.1 | 6.6 | 6.1 | 4.4 | 6.0 | 5.0 | 3.6 | 9.4 | 4.0 | 2.9 | 3.6 | 4.1 |
| 11 | 4.3 | 6.2 | 6.2 | 4.4 | 6.2 | 4.8 | 3.4 | 9.2 | 4.1 | 2.8 | 3.9 | 4.2 |
| 12 | 4.5 | 5.6 | 6.4 | 4.5 | 5.8 | 4.9 | 3.5 | 5.6 | 4.6 | 2.7 | 4.3 | 4.4 |
| 13 | 4.4 | 5.1 | 6.2 | 4.4 | 5.4 | 5.2 | 3.6 | 4.5 | 5.8 | 2.6 | 4.9 | 4.8 |
| 14 | 4.7 | 4.6 | 5.9 | 4.5 | 4.9 | 4.7 | 3.7 | 4.2 | 6.4 | 2.7 | 4.7 | 4.5 |
| 15 | 4.8 | 4.8 | 5.7 | 4.7 | 4.3 | 4.9 | 3.8 | 3.9 | 6.1 | 2.6 | 4.6 | 4.6 |
| 16 | 4.9 | 5.1 | 5.6 | 4.8 | 5.7 | 5.1 | 3.6 | 3.6 | 5.4 | 2.7 | 4.3 | 4.4 |
| 17 | 4.6 | 5.3 | 5.5 | 4.6 | 6.9 | 5.3 | 3.5 | 3.5 | 4.2 | 2.6 | 3.7 | 4.2 |
| 18 | 4.4 | 6.1 | 5.2 | 4.4 | 8.4 | 5.0 | 3.3 | 3.7 | 4.1 | 2.5 | 3.3 | 4.1 |
| 19 | 4.2 | 6.8 | 5.0 | 4.3 | 7.2 | 5.1 | 3.1 | 3.9 | 3.8 | 2.6 | 3.1 | 3.8 |
| 20 | 3.8 | 7.4 | 4.8 | 4.1 | 6.5 | 5.3 | 3.2 | 4.1 | 3.6 | 2.7 | 3.2 | 3.7 |
| 21 | 4.2 | 8.2 | 5.0 | 4.0 | 5.6 | 5.5 | 3.0 | 4.2 | 3.7 | 3.4 | 3.3 | 3.9 |
| 22 | 4.8 | 10.4 | 5.3 | 3.9 | 5.4 | 5.2 | 2.8 | 4.4 | 3.4 | 2.9 | 3.2 | 4.3 |
| 23 | 5.3 | 9.6 | 5.6 | 3.8 | 5.5 | 5.2 | 2.7 | 4.3 | 3.1 | 2.8 | 3.1 | 4.8 |
| 24 | 5.4 | 8.2 | 5.4 | 3.9 | 5.3 | 5.4 | 3.3 | 4.5 | 3.0 | 2.7 | 2.9 | 5.2 |
| 25 | 5.2 | 6.8 | 5.1 | 3.8 | 4.9 | 5.3 | 3.9 | 4.6 | 2.8 | 2.7 | 3.0 | 5.1 |
| 26 | 4.9 | 6.2 | 4.9 | 5.9 | 4.6 | 5.5 | 5.8 | 4.8 | 2.9 | 2.8 | 3.1 | 4.9 |
| 27 | 4.6 | 5.8 | 4.7 | 7.1 | 4.4 | 5.7 | 7.6 | 4.5 | 2.7 | 2.9 | 3.0 | 4.7 |
| 28 | 4.3 | 5.4 | 4.5 | 6.9 | 4.2 | 5.8 | 8.1 | 4.7 | 2.9 | 2.8 | 3.2 | 4.5 |
| 29 | 4.0 | 5.3 | 4.6 | 5.7 | 4.0 | 6.7 | 7.2 | 4.9 | 2.8 | 2.7 | 3.1 | 4.2 |
| 30 | 3.9 | ------- | 4.5 | 4.8 | 3.8 | 6.4 | 6.7 | 5.2 | 2.8 | 2.8 | 3.3 | 4.3 |
| 31 | 3.8 | ------- | 4.4 | ------- | 6.9 | ------- | 5.8 | 5.1 | ------- | 2.7 | ------ | 3.9 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1905.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.7 | ------ | 9.8 | 4.3 | 4.2 | 6.7 | 7.1 | 5.2 | 5.2 | 3.3 | 3.45 | 3.95 |
| 2 | 3.7 | ------ | 9.2 | 4.1 | 4.1 | 6.5 | 7.9 | 4.9 | 6.5 | 3.45 | 3.35 | 4.15 |
| 3 | 3.8 | ------ | 8.6 | 4.2 | 4.3 | 6.0 | 8.4 | 4.7 | 19.93 | 3.45 | 3.4 | 4.25 |
| 4 | 4.3 | ------ | 7.2 | 4.4 | 4.4 | 4.4 | 8.9 | 4.5 | 15.03 | 3.4 | 3.45 | 4.35 |
| 5 | 4.1 | ------ | 7.4 | 5.2 | 4.2 | 4.5 | 9.5 | 4.4 | 9.8 | 3.35 | 3.45 | 4.5 |
| 6 | 3.8 | ------ | 7.6 | 8.2 | 4.1 | 4.3 | 12.4 | 5.03 | 7.47 | 3.45 | 3.6 | 4.75 |
| 7 | 10.0 | ------ | 7.8 | 7.6 | 4.0 | 4.2 | 14.8 | 5.73 | 5.63 | 3.35 | 3.45 | 4.8 |
| 8 | 12.9 | ------ | 7.9 | 6.9 | 4.2 | 4.4 | 12.3 | 6.33 | 5.4 | 3.5 | 3.35 | 6.75 |
| 9 | 8.0 | ------ | 7.7 | 6.2 | 4.3 | 4.2 | 9.4 | 6.67 | 5.43 | 3.65 | 3.45 | 7.0 |
| 10 | 5.5 | ------ | 8.0 | 5.6 | 4.5 | 3.9 | 7.0 | 7.57 | 4.9 | 3.7 | 3.55 | 4.65 |
| 11 | 5.0 | ------ | 11.07 | 4.8 | 7.8 | 3.6 | 8.2 | 7.73 | 4.47 | 3.75 | 3.55 | 4.75 |
| 12 | 5.1 | ------ | 11.6 | 4.9 | 10.6 | 3.6 | 10.01 | 8.57 | 4.17 | 4.15 | 3.6 | 4.9 |
| 13 | 10.1 | ------ | 11.4 | 5.4 | 11.8 | 3.5 | 15.45 | 8.4 | 4.27 | 5.6 | 3.45 | 4 75 |
| 14 | 9.7 | ------ | 10.9 | 6.2 | 12.0 | 3.6 | 21.6 | 8.1 | 4.27 | 6.05 | 3.6 | 4.75 |
| 15 | 7.0 | ------ | 9.8 | 6.4 | 10.8 | 3.5 | 12.78 | 7.73 | 4.23 | 5.55 | 3.45 | 4.65 |
| 16 | 5.6 | ------ | 8.4 | 5.9 | 9.7 | 3.7 | 8.41 | 7.37 | 4.23 | 4.9 | 3.45 | 4.85 |
| 17 | 4.7 | ------ | 6.9 | 5.8 | 8.85 | 3.6 | 8.81 | 6.43 | 4.2 | 3.7 | 3.55 | 5.15 |
| 18 | 5.0 | ------ | 6.2 | 5.4 | 6.85 | 3.7 | 7.95 | 6.07 | 4.27 | 3.65 | 3.65 | 5.2 |
| 19 | 4.9 | ------ | 6.1 | 5.1 | 7.0 | 3.6 | 6.78 | 5.77 | 4.03 | 3.5 | 3.55 | 5.4 |
| 20 | 4.8 | ------ | 5.7 | 4.9 | 6.0 | 3.5 | 5.88 | 5.7 | 3.87 | 3.5 | 3.55 | 5.65 |
| 21 | 4.5 | ------ | 5.8 | 4.7 | 5.9 | 3.7 | 5.48 | 5.5 | 3.77 | 3.65 | 3.45 | 5.55 |
| 22 | 4.3 | 10.5 | 5.6 | 4.4 | 5.8 | 3.6 | 5.21 | 5.2 | 3.87 | 3.65 | 3.55 | 5.45 |
| 23 | 4.1 | 11.9 | 5.4 | 4.2 | 5.6 | 3.5 | 8.48 | 4.37 | 3.7 | 3.65 | 3.55 | 5.65 |
| 24 | 3.8 | 12.1 | 5.2 | 4.0 | 5.5 | 12.0 | 10.05 | 4.17 | 3.5 | 3.45 | 3.65 | 13.35 |
| 25 | 3.5 | 11.4 | 5.1 | 3.9 | 5.7 | 11.8 | 6.91 | 4.1 | 3.17 | 3.6 | 3.55 | 21.85 |
| 26 | 3.2 | 11.0 | 5.3 | 4.3 | 5.8 | 9.6 | 6.51 | 4.3 | 3.17 | 3.9 | 3.65 | 16.8 |
| 27 | 3.3 | 10.8 | 5.4 | 4.2 | 6.0 | 8.8 | 5.85 | 4.23 | 3.33 | 3.75 | 3.65 | 12.05 |
| 28 | 3.2 | 10.2 | 5.2 | 4.1 | 8.3 | 8.3 | 5.28 | 4.33 | 3.3 | 3.65 | 3.75 | 10.0 |
| 29 | 3.4 | ------ | 4.9 | 4.2 | 7.8 | 7.6 | 5.08 | 4.43 | 3.33 | 3.55 | 3.85 | 8.3 |
| 30 | 3.4 | ------ | 4.6 | 4.3 | 7.6 | 6.6 | 5.28 | 4.47 | 3.47 | 3.65 | 3.75 | 8.1 |
| 31 | 3.4 | ------ | 4.4 | ------ | 6.9 | ------ | 5.38 | 4.73 | ------ | 3.6 | ------ | 8.15 |

NOTE.—River frozen over January 28 to February 21.

DAILY GAGE HEIGHT, IN FEET, OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1906.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. |
|---|---|---|---|---|---|---|---|---|
| 1 | 10.3 | 11.5 | 5.75 | 9.85 | 4.65 | 5.6 | 5.95 | 8.5 |
| 2 | 8.65 | 10.1 | 5.75 | 7.95 | 4.8 | 5.4 | 5.65 | 6.55 |
| 3 | 6.6 | 7.5 | 5.6 | 7.15 | 4.9 | 5.4 | 5.3 | 6.4 |
| 4 | 12.9 | 6.2 | 5.75 | 6.75 | 4.8 | 5.4 | 5.05 | 6.85 |
| 5 | 23.6 | 6.2 | 5.85 | 6.45 | 4.65 | 5.6 | 4.85 | 7.1 |
| 6 | 19.8 | 6.35 | 5.9 | 6.4 | 4.85 | 5.5 | 4.75 | 7.3 |
| 7 | 7.65 | 6.3 | 6.15 | 6.15 | 5.15 | 5.45 | 4.75 | 7.1 |
| 8 | 6.7 | 6.25 | 6.0 | 5.95 | 5.7 | 5.15 | 4.55 | 6.9 |
| 9 | 6.75 | 6.25 | 5.85 | 6.35 | 6.05 | 5.25 | 4.55 | 6.7 |
| 10 | 6.9 | 7.05 | 5.75 | 7.5 | 5.9 | 5.35 | 4.85 | 7.4 |
| 11 | 6.85 | 6.85 | 5.85 | 8.95 | 5.55 | 5.1 | 5.25 | 7.5 |
| 12 | 6.95 | 6.65 | 5.85 | 9.15 | 5.5 | 5.15 | 5.8 | ------- |
| 13 | 7.15 | 6.25 | 5.85 | 8.65 | 5.0 | 5.05 | 5.9 | ------- |
| 14 | 7.25 | 5.7 | 5.75 | 7.3 | 5.05 | 4.95 | 5.65 | ------- |
| 15 | 6.75 | 6.05 | 5.65 | 8.25 | 4.9 | 5.2 | 5.45 | ------- |
| 16 | 6.55 | 5.85 | 5.65 | 8.2 | 4.85 | 5.2 | 5.25 | ------- |
| 17 | 6.35 | 5.65 | 5.85 | 7.5 | 4.65 | 5.25 | 4.75 | ------- |
| 18 | 6.3 | 5.35 | 8.85 | 7.35 | 4.75 | 5.35 | 4.45 | ------- |
| 19 | 5.85 | 5.35 | 7.7 | 7.35 | 4.65 | 5.65 | 4.25 | ------- |
| 20 | 5.4 | 5.35 | 13.0 | 7.4 | 4.65 | 5.15 | 4.4 | ------- |
| 21 | 5.85 | 5.25 | 11.0 | 7.0 | 4.45 | 7.2 | 5.05 | ------- |
| 22 | 5.85 | 5.35 | 9.1 | 6.75 | 4.45 | 9.35 | 5.55 | ------- |
| 23 | 5.65 | 5.15 | 7.75 | 6.45 | 4.2 | 6.95 | 6.5 | ------- |
| 24 | 5.75 | 4.95 | 7.05 | 6.45 | 4.1 | 5.1 | 6.15 | ------- |
| 25 | 5.6 | 4.95 | 6.8 | 6.3 | 3.9 | 7.75 | 5.3 | ------- |
| 26 | 5.8 | 4.85 | 6.75 | 5.95 | 4.1 | 7.4 | 4.6 | ------- |
| 27 | 6.05 | 5.15 | 6.75 | 5.65 | 4.45 | 6.65 | 4.55 | ------- |
| 28 | 10.6 | 5.35 | 7.15 | 5.6 | 5.75 | 6.35 | 4.25 | ------- |
| 29 | 11.55 | ------- | 7.35 | 5.25 | 8.9 | 6.65 | 4.5 | ------- |
| 30 | 12.4 | ------- | 8.75 | 5.0 | 8.3 | 6.25 | 7.45 | ------- |
| 31 | 12.5 | ------- | 15.6 | ------- | 6.55 | ------- | 7.75 | ------- |

NOTE.—Discharge probably unaffected by ice.

RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FROM SEPTEMBER 1, 1900, TO DECEMBER 31, 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.40 | 1,145 | 3.20 | 2,690 | 6.00 | 5,050 | 10.00 | 9,750 |
| 0.60 | 1,205 | 3.40 | 2,830 | 6.20 | 5,260 | 10.50 | 10,400 |
| 0.80 | 1,270 | 3.60 | 2,980 | 6.40 | 5,480 | 11.00 | 11,050 |
| 1.00 | 1,350 | 3.80 | 3,140 | 6.60 | 5,700 | 11.50 | 11,750 |
| 1.20 | 1,430 | 4.00 | 3,300 | 6.80 | 5,920 | 12.00 | 12,500 |
| 1.40 | 1,515 | 4.20 | 3,460 | 7.00 | 6,150 | 12.50 | 13,250 |
| 1.60 | 1,615 | 4.40 | 3,620 | 7.20 | 6,380 | 13.00 | 14,000 |
| 1.80 | 1,730 | 4.60 | 3,780 | 7.40 | 6,610 | 13.50 | 14,850 |
| 2.00 | 1,850 | 4.80 | 3,940 | 7.60 | 6,840 | 14.00 | 15,750 |
| 2.20 | 1,990 | 5.00 | 4,100 | 7.80 | 7,070 | 14.50 | 16,650 |
| 2.40 | 2,130 | 5.20 | 4,270 | 8.00 | 7,300 | 15.00 | 17,600 |
| 2.60 | 2,270 | 5.40 | 4,450 | 8.50 | 7,900 | | |
| 2.80 | 2,410 | 5.60 | 4,640 | 9.00 | 8,500 | | |
| 3.00 | 2,550 | 5.80 | 4,840 | 9.50 | 9,125 | | |

The above table is strictly applicable only for open-channel conditions. It is not well defined.

RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FROM JANUARY 1 TO OCTOBER 12, 1902.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.2 | 1,490 | 4.4 | 2,720 | 6.6 | 4,570 | 10.0 | 8,500 |
| 2.4 | 1,580 | 4.6 | 2,880 | 6.8 | 4,760 | 10.5 | 9,150 |
| 2.6 | 1,670 | 4.8 | 3,040 | 7.0 | 4,950 | 11.0 | 9,800 |
| 2.8 | 1,760 | 5.0 | 3,200 | 7.2 | 5,160 | 11.5 | 10,600 |
| 3.0 | 1,850 | 5.2 | 3,360 | 7.4 | 5,370 | 12.0 | 11,400 |
| 3.2 | 1,960 | 5.4 | 3,520 | 7.6 | 5,580 | 12.5 | 12,200 |
| 3.4 | 2,070 | 5.6 | 3,680 | 7.8 | 5,790 | 13.0 | 13,000 |
| 3.6 | 2,180 | 5.8 | 3,840 | 8.0 | 6,000 | 13.5 | 13,900 |
| 3.8 | 2,290 | 6.0 | 4,000 | 8.5 | 6,625 | 14.0 | 14,800 |
| 4.0 | 2,400 | 6.2 | 4,190 | 9.0 | 7,250 | 14.5 | 15,800 |
| 4.2 | 2,560 | 6.4 | 4,380 | 9.5 | 7,875 | 15.0 | 16,800 |

The above table is strictly applicable only for open-channel conditions. It is not well defined.

RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FROM JANUARY 1 TO DECEMBER 31, 1903.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.4 | 1,310 | 5.4 | 2,830 | 7.8 | 4,860 | 11.8 | 9,080 |
| 3.5 | 1,370 | 5.5 | 2,910 | 8.0 | 5,040 | 12.0 | 9,320 |
| 3.6 | 1,435 | 5.6 | 2,990 | 8.2 | 5,240 | 12.2 | 9,560 |
| 3.7 | 1,500 | 5.7 | 3,070 | 8.4 | 5,440 | 12.4 | 9,800 |
| 3.8 | 1,570 | 5.8 | 3,150 | 8.6 | 5,640 | 12.6 | 10,040 |
| 3.9 | 1,640 | 5.9 | 3,230 | 8.8 | 5,840 | 12.8 | 10,280 |
| 4.0 | 1,715 | 6.0 | 3,310 | 9.0 | 6,040 | 13.0 | 10,520 |
| 4.1 | 1,790 | 6.1 | 3,390 | 9.2 | 6,240 | 13.2 | 10,760 |
| 4.2 | 1,870 | 6.2 | 3,470 | 9.4 | 6,440 | 13.4 | 11,000 |
| 4.3 | 1,950 | 6.3 | 3,550 | 9.6 | 6,640 | 13.6 | 11,240 |
| 4.4 | 2,030 | 6.4 | 3,630 | 9.8 | 6,840 | 13.8 | 11,480 |
| 4.5 | 2,110 | 6.5 | 3,710 | 10.0 | 7,060 | 14.0 | 11,720 |
| 4.6 | 2,190 | 6.6 | 3,790 | 10.2 | 7,280 | 14.2 | 11,960 |
| 4.7 | 2,270 | 6.7 | 3,870 | 10.4 | 7,500 | 14.4 | 12,200 |
| 4.8 | 2,350 | 6.8 | 3,960 | 10.6 | 7,720 | 14.6 | 12,460 |
| 4.9 | 2,430 | 6.9 | 4,050 | 10.8 | 7,940 | 14.8 | 12,720 |
| 5.0 | 2,510 | 7.0 | 4,140 | 11.0 | 8,160 | 15.0 | 12,980 |
| 5.1 | 2,590 | 7.2 | 4,320 | 11.2 | 8,380 | 15.5 | 13,680 |
| 5.2 | 2,670 | 7.4 | 4,500 | 11.4 | 8,600 | 16.0 | 14,400 |
| 5.3 | 2,750 | 7.6 | 4,680 | 11.6 | 8,840 | | |

Tangent above 15.8 feet, gage height; differences above this point, 150 per tenth.

RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FROM JANUARY 1 TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.50 | 590 | 3.90 | 1,620 | 5.30 | 2,775 | 7.40 | 4,720 |
| 2.60 | 655 | 4.00 | 1,700 | 5.40 | 2,860 | 7.60 | 4,920 |
| 2.70 | 725 | 4.10 | 1,780 | 5.50 | 2,950 | 7.80 | 5,120 |
| 2.80 | 795 | 4.20 | 1,860 | 5.60 | 3,040 | 8.00 | 5,320 |
| 2.90 | 865 | 4.30 | 1,940 | 5.70 | 3,130 | 8.50 | 5,820 |
| 3.00 | 935 | 4.40 | 2,020 | 5.80 | 3,220 | 9.00 | 6,340 |
| 3.10 | 1,005 | 4.50 | 2,100 | 5.90 | 3,310 | 9.50 | 6,865 |
| 3.20 | 1,080 | 4.60 | 2,180 | 6.00 | 3,400 | 10.00 | 7,390 |
| 3.30 | 1,155 | 4.70 | 2,265 | 6.20 | 3,580 | 10.50 | 7,915 |
| 3.40 | 1,230 | 4.80 | 2,350 | 6.40 | 3,770 | 11.00 | 8,440 |
| 3.50 | 1,305 | 4.90 | 2,435 | 6.60 | 3,960 | 11.50 | 8,980 |
| 3.60 | 1,380 | 5.00 | 2,520 | 6.80 | 4,150 | 12.00 | 9,530 |
| 3.70 | 1,460 | 5.10 | 2,605 | 7.00 | 4,340 | | |
| 3.80 | 1,540 | 5.20 | 2,690 | 7.20 | 4,530 | | |

The above table is applicable only for open-channel conditions. It is based upon 14 discharge measurements made during 1902 to 1904, inclusive. It is well defined between gage heights 2.70 feet and 4.60 feet.

STATION RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FROM JANUARY 1 TO DECEMBER 31, 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.00 | 920 | 4.50 | 2,030 | 5.90 | 3,205 | 7.60 | 4,780 |
| 3.10 | 985 | 4.60 | 2,110 | 6.00 | 3,290 | 7.80 | 4,980 |
| 3.20 | 1,050 | 4.70 | 2,190 | 6.10 | 3,380 | 8.00 | 5,180 |
| 3.30 | 1,120 | 4.80 | 2,270 | 6.20 | 3,470 | 8.50 | 5,680 |
| 3.40 | 1,190 | 4.90 | 2,355 | 6.30 | 3,560 | 9.00 | 6,190 |
| 3.50 | 1,260 | 5.00 | 2,440 | 6.40 | 3,650 | 9.50 | 6,715 |
| 3.60 | 1,330 | 5.10 | 2,525 | 6.50 | 3,740 | 10.00 | 7,250 |
| 3.70 | 1,405 | 5.20 | 2,610 | 6.60 | 3,830 | 10.50 | 7,800 |
| 3.80 | 1,480 | 5.30 | 2,695 | 6.70 | 3,920 | 11.00 | 8,350 |
| 3.90 | 1,555 | 5.40 | 2,780 | 6.80 | 4,010 | 11.50 | 8,900 |
| 4.00 | 1,630 | 5.50 | 2,865 | 6.90 | 4,105 | 12.00 | 9,470 |
| 4.10 | 1,710 | 5.60 | 2,950 | 7.00 | 4,200 | 12.50 | 10,050 |
| 4.20 | 1,790 | 5.70 | 3,035 | 7.20 | 4,390 | 13.00 | 10,650 |
| 4.30 | 1,870 | 5.80 | 3,120 | 7.40 | 4,580 | 13.50 | 11,250 |
| 4.40 | 1,950 | | | | | | |

The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1902-1905. It is fairly well defined between gage heights 2.6 feet and 14 feet.

STATION RATING TABLE FOR ROANOKE RIVER AT RANDOLPH, VA., FOR 1906.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.90 | 1,300 | .20 | 2,280 | .50 | 3,415 | .60 | 6,530 |
| 4.00 | 1,370 | .30 | 2,360 | .60 | 3,510 | .80 | 5,750 |
| .10 | 1,440 | .40 | 2,445 | .70 | 3,605 | 9.00 | 5,970 |
| .20 | 1,510 | .50 | 2,530 | .80 | 3,700 | .20 | 6,190 |
| .30 | 1,580 | .60 | 2,615 | .90 | 3,800 | .40 | 6,410 |
| .40 | 1,655 | .70 | 2,700 | 7.00 | 3,900 | .60 | 6,630 |
| .50 | 1,730 | .80 | 2,785 | .20 | 4,100 | .80 | 6,850 |
| .60 | 1,805 | .90 | 2,870 | .40 | 4,300 | 10.00 | 7,080 |
| .70 | 1,880 | 6.00 | 2,960 | .60 | 4,500 | .20 | ------ |
| .80 | 1,960 | .10 | 3,050 | .80 | 4,700 | 11.00 | 8,260 |
| .90 | 2,040 | .20 | 3,140 | 8.00 | 4,900 | 12.00 | 9,460 |
| 5.00 | 2,120 | .30 | 3,230 | .20 | 5,110 | 13.00 | 10,660 |
| .10 | 2,200 | .40 | 3,320 | .40 | 5,320 | 14.00 | 11,900 |

The above table is applicable only for open-channel conditions. It is based upon discharge measurements made during 1905-1908 and the form of former curves. It is fairly well defined. Above gage height 14.0 feet this discharge table is the same as that for 1905.

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT RANDOLPH, VA.

[Drainage area, 3,076 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | |
| September | 8,625 | 1,120 | 1,878 | 0.61 | 0.68 |
| October | 17,900 | 1,350 | 2,597 | .84 | .97 |
| November | 13,100 | 2,025 | 2,938 | .96 | 1.07 |
| December | 18,600 | 2,550 | 3,944 | 1.28 | 1.48 |
| 1901. | | | | | |
| January | 35,980 | 2,550 | 5,362 | 1.74 | 2.01 |
| February | 3,860 | 2,410 | 2,948 | .98 | 1.02 |
| March | 14,850 | 2,340 | 4,000 | 1.30 | 1.50 |
| April | 36,910 | 3,580 | 9,620 | 3.13 | 3.49 |
| May | 37,940 | 2,980 | 8,148 | 2.65 | 3.16 |
| June | 9,750 | 3,140 | 4,759 | 1.55 | 1.73 |
| July | 30,980 | 2,690 | 6,259 | 2.03 | 2.34 |
| August | 45,100 | 2,620 | 13,185 | 4.29 | 4.94 |
| September | 6,955 | 2,620 | 3,998 | 1.30 | 1.45 |
| October | 6,725 | 2,795 | 3,346 | 1.09 | 1.26 |
| November | 5,260 | 2,725 | 2,984 | .97 | 1.08 |
| December | 75,100 | 2,830 | 9,621 | 3.13 | 3.61 |
| The year | 75,100 | 2,340 | 6,186 | 2.01 | 27.59 |
| †1902. | | | | | |
| January | 26,200 | 2,800 | 5,388 | 1.75 | 2.02 |
| February | 51,050 | 2,880 | 10,290 | 3.35 | 3.49 |
| March | 40,500 | 3,600 | 8,616 | 2.80 | 3.23 |
| April | 10,120 | 3,040 | 4,398 | 1.43 | 1.60 |
| May | 4,950 | 2,400 | 3,250 | 1.06 | 1.22 |
| June | 24,450 | 2,070 | 3,656 | 1.19 | 1.33 |
| July | 3,440 | 1,580 | 2,149 | .70 | .81 |
| August | 5,370 | 1,580 | 2,198 | .71 | .82 |
| September | 2,720 | 1,535 | 1,844 | .60 | .67 |
| October | 38,150 | 1,435 | 4,845 | 1.58 | 1.82 |
| November | 8,600 | 1,370 | 2,551 | .83 | .92 |
| December | 14,550 | 2,270 | 5,349 | 1.74 | 2.01 |
| The year | 51,050 | 1,370 | 4,545 | 1.48 | 19.94 |
| 1903. | | | | | |
| January | 23,850 | 2,590 | 6,123 | 1.99 | 2.29 |
| February | 44,200 | 3,710 | 8,575 | 2.79 | 2.90 |
| March | 44,550 | 3,915 | 11,010 | 3.58 | 4.13 |
| April | 14,050 | 4,320 | 7,041 | 2.29 | 2.55 |
| May | 4,500 | 2,590 | 3,370 | 1.10 | 1.27 |
| June | 9,200 | 2,430 | 4,147 | 1.35 | 1.51 |
| July | 4,950 | 1,500 | 2,445 | .79 | .91 |
| August | 9,680 | 1,310 | 2,712 | .88 | 1.01 |
| September | 13,420 | 1,570 | 3,273 | 1.06 | 1.18 |
| October | 4,410 | 1,500 | 2,191 | .71 | .82 |
| November | 2,510 | 1,500 | 1,841 | .60 | .67 |
| December | 2,430 | 1,570 | 1,940 | .63 | .73 |
| The year | 44,550 | 1,310 | 4,556 | 1.48 | 19.97 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1904.

[Drainage area, 3,076 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| January | 2,860 | 1,540 | 2,087 | 0.678 | 0.782 |
| February | 7,810 | 1,620 | 3,667 | 1.19 | 1.28 |
| March | 3,770 | 2,020 | 2,787 | .906 | 1.04 |
| April | 4,435 | 1,540 | 2,224 | .723 | .807 |
| May | 5,720 | 1,540 | 2,939 | .955 | 1.10 |
| June | 9,750 | 2,265 | 3,397 | 1.10 | 1.23 |
| July | 5,420 | 725 | 2,117 | .668 | .793 |
| August | 6,760 | 1,305 | 2,899 | .942 | 1.09 |
| September | 3,770 | 725 | 1,801 | .586 | .654 |
| October | 1,230 | 590 | 787 | .256 | .295 |
| November | 2,435 | 725 | 889 | .289 | .322 |
| December | 2,690 | 1,230 | 1,881 | .612 | .706 |
| The year | 9,750 | 590 | 2,290 | .744 | 10.10 |

ESTIMATED MONTHLY DISCHARGE OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1905.

[Drainage area, 3,076 square miles.]

| | | | | | |
|---|---|---|---|---|---|
| January | 10,530 | 1,050 | 2,773 | 0.901 | 1.04 |
| February (22-28) | 9,585 | 7,470 | 8,497 | 2.76 | .718 |
| March | 9,010 | 1,950 | 4,601 | 1.50 | 1.73 |
| April | 5,380 | 1,555 | 2,576 | .837 | .934 |
| May | 9,470 | 1,630 | 3,974 | 1.29 | 1.49 |
| June | 9,470 | 1,260 | 2,891 | .940 | 1.05 |
| July | 28,960 | 2,508 | 6,485 | 2.11 | 2.43 |
| August | 5,750 | 1,710 | 3,083 | 1.00 | 1.15 |
| September | 23,940 | 1,030 | 3,213 | 1.04 | 1.16 |
| October | 3,335 | 1,120 | 1,528 | .497 | .573 |
| November | 1,518 | 1,155 | 1,292 | .420 | .469 |
| December | 29,740 | 1,592 | 4,733 | 1.54 | 1.78 |

NOTE.—River frozen over January 28 to February 21. No correction made in January estimates.

MONTHLY DISCHARGE OF ROANOKE RIVER AT RANDOLPH, VA., FOR 1906.

[Drainage area, 3,080 square miles.]

| | | | | | |
|---|---|---|---|---|---|
| January | 35,200 | 2,440 | 6,200 | 2.01 | 2.32 |
| February | 8,860 | 2,000 | 3,220 | 1.05 | 1.09 |
| March | 14,000 | 2,620 | 4,210 | 1.37 | 1.58 |
| April | 6,910 | 2,120 | 3,980 | 1.29 | 1.44 |
| May | 5,860 | 1,300 | 2,300 | .747 | .86 |
| June | 6,360 | 2,080 | 2,880 | .935 | 1.04 |
| July | 4,650 | 1,540 | 2,360 | .766 | .88 |
| August 1-11 | 5,420 | 3,320 | 4,020 | 1.31 | .54 |

NOTE.—Station discontinued August 12, 1906.

## DAN RIVER AT CLARKSVILLE, VA.

This station was located at the Southern Railway bridge, a short distance above the junction with Roanoke River. As noted for the Roanoke River Station, the gage readings are liable to be affected by backwater. It was established on December 4, 1895, and abandoned in 1898.

DISCHARGE MEASUREMENTS OF DAN RIVER AT CLARKSVILLE, VA.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1895. | | | | | |
| Oct. 2 | C. C. Babb | 591 | 1.31 | 0.38 | 773 |
| Oct. 28 | ----do | 719 | 1.44 | 0.65 | 1,032 |
| Dec. 5 | ----do | 865 | 1.60 | 1.12 | 1,382 |
| 1896. | | | | | |
| Apr. 22 | E. W. Myers | 1,209 | 1.89 | 2.43 | 2,291 |
| May 5* | ----do | 1,465 | 1.83 | 2.30 | 2,694 |
| May 26 | ----do | 1,465 | 1.47 | 2.30 | 2,155 |
| July 15 | ----do | 1,932 | 2.39 | 3.50 | 4,626 |
| Sept. 15 | A. P. Davis | 953 | 1.50 | 1.70 | 1,433 |
| 1897. | | | | | |
| Feb. 25 | E. W. Myers | 7,443 | 3.49 | 12.33 | 26,020 |
| Mar. 18 | ----do | 2,867 | 2.70 | 4.20 | 7,755 |
| Sept. 29 | ----do | 797 | 1.07 | 0.10 | 856 |
| 1898. | | | | | |
| Jan. 8 | E. W. Myers | 1,138 | 1.76 | 1.05 | 2,009 |

*For measurement of May 5, 1896, the channel had cut badly, averaging almost all way across a cut of 1 foot.

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT CLARKSVILLE, VA., FOR 1896.

| Day. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 9.47 | 2.62 | 1.22 | 1.02 | 0.92 | 0.42 | 7.92 | 0.97 | 3.53 |
| 2 | | | 10.37 | 3.67 | 1.17 | .92 | .87 | .40 | 8.97 | 1.02 | 4.82 |
| 3 | | | 9.52 | 4.42 | 1.07 | .87 | .82 | .52 | 3.47 | 1.04 | 3.65 |
| 4 | | | 5.77 | 3.47 | .97 | .82 | .77 | 1.37 | 1.72 | 1.47 | 2.55 |
| 5 | | | 3.99 | 2.38 | 1.47 | .87 | .75 | 1.52 | 1.47 | 2.62 | 2.17 |
| 6 | | | 3.37 | 2.26 | 2.12 | 1.02 | .72 | .97 | 1.32 | 6.92 | 2.05 |
| 7 | 8.95 | | 3.32 | 2.12 | 1.97 | 4.02 | .70 | 2.97 | 1.25 | 4.97 | 1.97 |
| 8 | 7.42 | | 2.97 | 1.97 | 1.47 | 6.02 | .67 | 1.82 | 1.17 | 2.47 | 1.89 |
| 9 | 5.75 | | 2.77 | 1.82 | 1.47 | 9.12 | .65 | 1.47 | 1.07 | 2.17 | 1.80 |
| 10 | 5.42 | | 2.52 | 1.72 | 1.97 | 13.97 | .65 | .97 | 1.02 | 1.77 | 1.72 |
| 11 | 4.40 | | 2.51 | 1.67 | 1.82 | 14.07 | .87 | .82 | 1.02 | 1.57 | 1.62 |
| 12 | 3.42 | | 2.50 | 1.62 | 1.72 | 8.87 | 1.65 | .62 | .97 | 1.47 | 1.56 |
| 13 | 2.92 | | 2.45 | 1.57 | 1.67 | 5.62 | 1.77 | .57 | .95 | 1.57 | 1.51 |
| 14 | 3.70 | | 2.22 | 1.54 | 1.62 | 3.22 | 1.92 | .55 | .95 | 1.52 | 1.43 |
| 15 | 3.47 | 1.90 | 2.17 | 1.47 | 1.62 | 2.67 | 1.97 | .57 | 1.02 | 1.50 | 1.53 |
| 16 | 3.32 | 1.87 | 2.12 | 1.02 | 1.60 | 2.47 | 2.12 | .57 | .97 | 1.48 | 1.72 |
| 17 | 2.97 | 2.45 | 2.07 | .97 | 1.57 | 2.39 | 1.47 | .62 | .96 | 1.48 | 2.15 |
| 18 | 2.40 | 2.68 | 2.02 | 1.02 | 1.47 | 2.27 | .97 | .59 | .92 | 1.25 | 1.97 |
| 19 | 2.22 | 2.80 | 1.97 | 1.12 | 1.37 | 2.17 | .72 | .57 | .87 | 1.22 | 1.72 |
| 20 | 2.07 | 4.09 | 1.92 | 1.62 | 1.32 | 2.03 | .67 | .67 | .87 | 1.19 | 1.65 |
| 21 | 1.92 | 4.52 | 1.85 | 2.18 | 1.47 | 1.85 | .65 | .92 | .85 | 1.16 | 1.59 |
| 22 | 1.77 | 3.32 | 1.90 | 3.07 | 1.57 | 1.79 | .62 | 1.47 | .82 | 1.16 | 1.52 |
| 23 | 1.97 | 2.72 | 1.90 | 4.37 | 1.72 | 1.70 | .62 | 1.75 | .89 | 1.15 | 1.45 |
| 24 | 2.10 | 2.49 | 1.82 | 3.17 | 2.47 | 1.57 | .62 | .72 | .92 | 1.14 | 1.39 |
| 25 | 2.17 | 2.72 | 1.90 | 2.17 | 3.02 | 1.42 | .59 | .57 | .97 | 1.13 | 1.35 |
| 26 | 2.07 | 2.80 | 2.47 | 1.50 | 3.53 | 1.35 | .67 | .52 | .94 | 1.12 | 1.31 |
| 27 | 1.96 | 2.47 | 2.40 | 2.32 | 3.67 | 1.17 | .77 | .47 | .92 | 1.11 | 1.29 |
| 28 | 1.99 | 2.27 | 2.00 | 2.97 | 2.67 | 1.12 | .62 | .45 | .92 | 1.10 | 1.27 |
| 29 | 2.17 | 2.27 | 1.90 | 2.32 | 2.02 | 1.07 | .57 | 1.72 | .92 | 1.32 | 1.24 |
| 30 | | 3.39 | 1.77 | 1.82 | 1.52 | 1.02 | .47 | 5.47 | .91 | 2.02 | 1.22 |
| 31 | | 7.89 | | 1.27 | | .97 | .42 | | .94 | | 1.22 |

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT CLARKSVILLE, VA., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.75 | 2.70 | 2.90 | 1.98 | 1.72 | 1.60 | 1.10 | 0.71 | 0.23 | 0.05 | 1.55 | 2.75 |
| 2 | 1.75 | 3.20 | 2.75 | 1.95 | 2.85 | 1.56 | 1.03 | .67 | .20 | .05 | 1.92 | 2.35 |
| 3 | 1.74 | 4.05 | 2.67 | 2.00 | 5.30 | 1.55 | .98 | .55 | .15 | .03 | 2.45 | 2.05 |
| 4 | 1.74 | 2.70 | 2.35 | 2.15 | 4.80 | 1.63 | .95 | .48 | .15 | .01 | 2.05 | 1.90 |
| 5 | 1.75 | 1.85 | 3.55 | 2.35 | 3.25 | 1.70 | .90 | .42 | .00 | — .03 | 1.60 | 1.85 |
| 6 | 1.77 | 2.35 | 4.65 | 2.85 | 3.10 | 1.08 | .87 | .38 | .00 | — .05 | 1.20 | 1.65 |
| 7 | 1.75 | 6.35 | 4.75 | 3.15 | 3.70 | 1.06 | .83 | .35 | .00 | — .03 | .98 | 1.40 |
| 8 | 1.71 | 12.29 | 4.60 | 3.45 | 3.45 | 1.04 | .98 | .35 | .00 | — .15 | .85 | 1.18 |
| 9 | 1.68 | 9.20 | 4.47 | 3.25 | 3.05 | 1.04 | .90 | .37 | .00 | — .02 | .68 | 1.05 |
| 10 | 1.65 | 4.75 | 3.98 | 4.10 | 2.75 | 1.03 | .85 | .73 | .00 | + .05 | .55 | .85 |
| 11 | 1.62 | 3.15 | 4.03 | 3.72 | 3.25 | 1.02 | .80 | .79 | .00 | .05 | .42 | .70 |
| 12 | 1.60 | 2.70 | 4.78 | 3.45 | 3.95 | 1.00 | .70 | .68 | .00 | 1.10 | .35 | .65 |
| 13 | 1.58 | 3.95 | 4.90 | 3.15 | 4.25 | .98 | 1.75 | .65 | .00 | 1.95 | .25 | .60 |
| 14 | 1.65 | 3.35 | 5.70 | 2.95 | 4.98 | .98 | 1.30 | .48 | .00 | 1.25 | .25 | .65 |
| 15 | 1.68 | 3.15 | 4.95 | 2.70 | 5.30 | .96 | 1.18 | .42 | .00 | 1.10 | .18 | .85 |
| 16 | 1.65 | 3.70 | 4.10 | 2.45 | 4.65 | .95 | .90 | .48 | .00 | .95 | .14 | .95 |
| 17 | 1.68 | 4.05 | 3.45 | 2.17 | 4.15 | .94 | .75 | .55 | .00 | 1.65 | .10 | 1.25 |
| 18 | 2.50 | 3.25 | 4.30 | 2.05 | 3.75 | .92 | .88 | .75 | .00 | 2.10 | .05 | 1.55 |
| 19 | 3.45 | 2.85 | 3.95 | 1.98 | 3.15 | .90 | 1.98 | .85 | .00 | 2.48 | .25 | 1.40 |
| 20 | 4.05 | 3.35 | 3.62 | 1.90 | 2.85 | .95 | 1.85 | .95 | .00 | 3.00 | .23 | 1.10 |
| 21 | 3.50 | 4.10 | 3.40 | 1.86 | 2.25 | .90 | 2.25 | 1.08 | .00 | 1.55 | .23 | 1.70 |
| 22 | 2.65 | 6.70 | 3.22 | 1.78 | 1.90 | .88 | 1.48 | .70 | .00 | .75 | .22 | 2.35 |
| 23 | 2.05 | 8.45 | 3.03 | 1.75 | 1.88 | .90 | 1.25 | .89 | .00 | 1.10 | .20 | 4.10 |
| 24 | 1.85 | 11.52 | 2.70 | 1.75 | 1.85 | .95 | 1.17 | .75 | .00 | .88 | .18 | 3.45 |
| 25 | 1.75 | 12.80 | 2.55 | 1.72 | 1.83 | .93 | .98 | .58 | .05 | .65 | .30 | 2.65 |
| 26 | 1.55 | 4.64 | 2.35 | 1.68 | 1.79 | .90 | .79 | .42 | .25 | .85 | .35 | 2.18 |
| 27 | 1.25 | 3.25 | 2.28 | 1.63 | 1.77 | .88 | .70 | .35 | .40 | 1.15 | .58 | 1.80 |
| 28 | .85 | 3.05 | 2.25 | 1.60 | 1.73 | .95 | .68 | .30 | .25 | 2.25 | 2.10 | 1.45 |
| 29 | 1.15 | ------- | 2.15 | 1.57 | 1.66 | .88 | 1.15 | .28 | .10 | 2.85 | 5.40 | 1.20 |
| 30 | 1.25 | ------- | 2.08 | 1.55 | 1.63 | .80 | 1.08 | .28 | .08 | 2.10 | 3.35 | 1.10 |
| 31 | 2.10 | ------- | 2.03 | ------- | 1.60 | ------- | .77 | .25 | ------- | 1.85 | ------ | .95 |

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT CLARKSVILLE, VA., FOR 1898.*

| Day. | Jan. | Feb. | Day. | Jan. | Feb. | Day. | Jan. | Feb. | Day. | Jan. | Feb. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.70 | 0.87 | 9 | 1.00 | 0.90 | 17 | 0.75 | 0.55 | 25 | 2.70 | 1.02 |
| 2 | .68 | .72 | 10 | .80 | 1.25 | 18 | 1.45 | .53 | 26 | 3.92 | .95 |
| 3 | .65 | .69 | 11 | .70 | 1.12 | 19 | 1.05 | .59 | 27 | 2.45 | ------- |
| 4 | .78 | .65 | 12 | 1.10 | 1.02 | 20 | .95 | .55 | 28 | 2.05 | ------- |
| 5 | .95 | .58 | 13 | .89 | .88 | 21 | .80 | .68 | 29 | 1.70 | ------- |
| 6 | 1.05 | .55 | 14 | .89 | .76 | 22 | .74 | .75 | 30 | 1.28 | ------- |
| 7 | 1.00 | .62 | 15 | .70 | .70 | 23 | .68 | .88 | 31 | .95 | ------- |
| 8 | 1.00 | .75 | 16 | .65 | .60 | 24 | 1.25 | .95 | | | |

*Station discontinued February 26.

RATING TABLE FOR DAN RIVER AT CLARKSVILLE, VA., FOR 1896-1897.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1896. | | | | | | | |
| 0.00 | 590 | 3.20 | 4,800 | 6.20 | 12,650 | 9.40 | 21,350 |
| 0.20 | 700 | 3.40 | 5,250 | 6.40 | 13,200 | 9.60 | 21,900 |
| 0.40 | 825 | 3.60 | 5,725 | 6.60 | 13,750 | 9.80 | 22,450 |
| 0.60 | 965 | 3.80 | 6,225 | 6.80 | 14,300 | 10.00 | 23,000 |
| 0.80 | 1,115 | 4.00 | 6,725 | 7.00 | 14,800 | 10.20 | 23,550 |
| 1.00 | 1,280 | 4.20 | 7,225 | 7.20 | 15,350 | 10.40 | 24,100 |
| 1.20 | 1,450 | 4.40 | 7,725 | 7.40 | 15,900 | 10.60 | 24,650 |
| 1.40 | 1,645 | 4.60 | 8,250 | 7.60 | 16,450 | 10.80 | 25,200 |
| 1.60 | 1,880 | 4.80 | 8,800 | 7.80 | 17,000 | 11.00 | 25,750 |
| 1.80 | 2,130 | 5.00 | 9,250 | 8.00 | 17,550 | 11.20 | 26,300 |
| 2.00 | 2,425 | 5.20 | 9,800 | 8.20 | 18,100 | 11.40 | 26,850 |
| 2.20 | 2,725 | 5.40 | 10,350 | 8.40 | 18,650 | 11.60 | 27,400 |
| 2.40 | 3,075 | 5.60 | 10,900 | 8.60 | 19,200 | 11.80 | 27,950 |
| 2.60 | 3,525 | 5.80 | 11,450 | 8.80 | 19,750 | 12.00 | 28,500 |
| 2.80 | 3,925 | 6.00 | 12,100 | 9.00 | 20,300 | 12.20 | 29,050 |
| 3.00 | 4,350 | ---- | ------ | 9.20 | 20,800 | ----- | ------ |
| 1897. | | | | | | | |
| —1.50 | 400 | 0.40 | 890 | 3.80 | 6,704 | 7.50 | 15,066 |
| —1.40 | 420 | 0.60 | 990 | 4.00 | 7,156 | 8.00 | 16,196 |
| —1.30 | 440 | 0.80 | 1,100 | 4.20 | 7,608 | 8.50 | 17,326 |
| —1.20 | 460 | 1.00 | 1,240 | 4.40 | 8,060 | 9.00 | 18,456 |
| —1.10 | 480 | 1.20 | 1,400 | 4.60 | 8,512 | 9.50 | 19,586 |
| —1.00 | 500 | 1.40 | 1,620 | 4.80 | 8,964 | 10.00 | 20,716 |
| —0.90 | 520 | 1.60 | 1,900 | 5.00 | 9,416 | 10.50 | 21,846 |
| —0.80 | 540 | 1.80 | 2,250 | 5.20 | 9,868 | 11.00 | 22,976 |
| —0.70 | 560 | 2.00 | 2,636 | 5.40 | 10,320 | 11.50 | 24,106 |
| —0.60 | 580 | 2.20 | 3,088 | 5.60 | 10,772 | 12.00 | 25,236 |
| —0.50 | 600 | 2.40 | 3,540 | 5.80 | 11,224 | 12.50 | 26,366 |
| —0.40 | 620 | 2.60 | 3,992 | 6.00 | 11,676 | 13.00 | 27,496 |
| —0.30 | 645 | 2.80 | 4,444 | 6.20 | 12,128 | 13.50 | 28,626 |
| —0.20 | 670 | 3.00 | 4,896 | 6.40 | 12,580 | 14.00 | 29,756 |
| —0.10 | 700 | 3.20 | 5,348 | 6.60 | 13,032 | ----- | ------ |
| 0.00 | 730 | 3.40 | 5,800 | 6.80 | 13,484 | ----- | ------ |
| 0.20 | 810 | 3.60 | 6,252 | 7.00 | 13,936 | ----- | ------ |

ESTIMATED MONTHLY DISCHARGE OF DAN RIVER AT CLARKSVILLE, VA.

[Drainage area, 3,798 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| February | 20,163 | 2,091 | 5,070 | 291,626 | 1.48 | 1.37 |
| March | 17,245 | 2,231 | 4,935 | 303,453 | 1.53 | 1.33 |
| April | 24,017 | 2,091 | 4,777 | 284,231 | 1.44 | 1.29 |
| May | 7,650 | 1,255 | 2,715 | 166,940 | 0.84 | 0.73 |
| June | 5,900 | 1,255 | 2,145 | 127,636 | 0.64 | 0.58 |
| July | *33,000 | 1,131 | 4,800 | 295,152 | 1.49 | 1.29 |
| August | 2,605 | 839 | 1,204 | 74,034 | 0.37 | 0.32 |
| September | 10,542 | 825 | 1,373 | 81,693 | 0.41 | 0.37 |
| October | 20,218 | 1,131 | 1,856 | 114,125 | 0.58 | 0.50 |
| November | 14,620 | 1,251 | 2,260 | 134,470 | 0.68 | 0.61 |
| December | 8,855 | 1,469 | 2,365 | 145,424 | 0.72 | 0.63 |

*Estimated.

ESTIMATED MONTHLY DISCHARGE OF DAN RIVER AT CLARKSVILLE, VA.

[Drainage area, 3,798 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1897. | | | | | | |
| January | 7,269 | 1,135 | 2,565 | 157,715 | 0.78 | 0.68 |
| February | 27,044 | 2,340 | 9,212 | 511,610 | 2.53 | 2.43 |
| March | 10,998 | 2,749 | 6,030 | 370,770 | 1.83 | 1.59 |
| April | 7,382 | 1,820 | 3,481 | 207,135 | 1.02 | 0.92 |
| May | 10,094 | 1,900 | 5,014 | 308,298 | 1.52 | 1.32 |
| June | 2,075 | 1,100 | 1,326 | 78,902 | 0.39 | 0.35 |
| July | 3,201 | 1,045 | 1,404 | 86,330 | 0.43 | 0.37 |
| August | 1,320 | 830 | 984 | 60,504 | 0.30 | 0.26 |
| September | 890 | 730 | 755 | 44,926 | 0.22 | 0.20 |
| October | 4,896 | 400 | 1,609 | 98,933 | 0.48 | 0.42 |
| November | 10,320 | 750 | 1,703 | 101,335 | 0.50 | 0.45 |
| December | 7,382 | 990 | 2,231 | 137,180 | 0.68 | 0.59 |
| The year | 27,044 | 400 | 3,026 | 2,163,638 | 10.68 | 0.80 |

## DAN RIVER AT SOUTH BOSTON, VA.

This station was established August 27, 1900. It is located in South Boston, on the Norfolk and Western Railway bridge, which crosses the river at that place.

This is a good station for the gaging of all except the highest stages of flow. At extreme heights the river spreads out over a flood plain of considerable width. The trestle connecting the bridge with the embankment on the south side of the river is a curve of rather high degree. The bed of the stream is of coarse sand and shifts slightly.

Discharge measurements are made from the bridge to which the gage is attached.

On May 18, 1903, the original wire gage was replaced by a standard chain gage referred to the same datum. The gage is located on the downstream guard rail near the center of the first span from the left bank. The length of the chain from the end of the weight to the marker is 35.02 feet. The gage is read twice daily by J. R. East. Bench mark No. 1 is the sharp inner corner, toward the left bank, of the plate attached to the inner surface of the struts at the center of the left span and furnishing a support to the wooden floor beam and tie. The elevation of the top of the plate is 32.88 feet above gage datum. Bench mark No. 2 is the top of a standard copper bolt set in the capstone of the abutment of the Southern Railway viaduct across the highway a short distance upstream from the crossing of the Norfolk and Western and the Southern railways. Its elevation is 30.68 feet above gage datum.

DISCHARGE MEASUREMENTS OF DAN RIVER AT SOUTH BOSTON, VA.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1900. | | | | | |
| Aug. 27 | E. W. Myers | | 580 | 1.00 | 1,046 |
| Oct. 31 | ---do | | 818 | 2.20 | 1,576 |
| 1901. | | | | | |
| Jan. 15 | Ernest Graves | | 1,856 | 5.79 | 4,447 |
| Mar. 28 | E. W. Myers | | 3,865 | 11.50 | 11,490 |
| Apr. 22 | N. C. Curtis | | 3,585 | 11 55 | 9,479 |
| May 24 | Ernest Graves | | 12,530 | 22.55 | 42,409 |
| July 23 | E. W. Myers | | 1,925 | 3.36 | 3,064 |
| Nov. 25 | J. S. Henderson | | 1,770 | 4.70 | 4,086 |
| 1902. | | | | | |
| July 9 | B. S. Drane | | 1,261 | 1.90 | 1,551 |
| Aug. 15 | ---do | | 1,001 | 1.65 | 1,333 |
| Oct. 13 | ---do | | 2,683 | 7.95 | 6,864 |
| Dec. 5 | ---do | | 3,237 | 8.90 | 9,197 |
| 1903. | | | | | |
| Feb. 18 | B. S. Drane | | 11,520 | 22.45 | 43,036 |
| Mar. 27 | E. C. Murphy | | 3,274 | 8.10 | 7,393 |
| May 18 | E. W. Myers | | 1,532 | 3.01 | 2,959 |
| May 19 | ---do | | 1,551 | 2.94 | 2,801 |
| June 23 | ---do | | 1,809 | 3.59 | 3,044 |
| June 23 | ---do | | 1,837 | 3.67 | 3,136 |
| Aug. 8 | B. S. Drane | | 1,519 | 2.62 | 2,378 |
| Aug. 27 | ---do | | 1,220 | 1.39 | 1,401 |
| Aug. 27 | ---do | | 1,225 | 1.44 | 1,389 |
| Sept. 18 | ---do | | 3,309 | 8.78 | 9,411 |
| Sept. 25 | Paul and Sawyer | | 1,027 | 1.40 | 1,519 |
| Dec. 2 | W. C. Sawyer | | 1,080 | 1.51 | 1,258 |
| 1904. | | | | | |
| June 21 | F. H. Brundage | 253 | 1,542 | 2.68 | 2,422 |
| Sept. 15 | R. H. Bolster | 295 | 3,820 | 10.82 | 10,890 |
| Sept. 28 | ---do | 243 | 1,152 | 1.22 | 1,385 |
| Oct. 20 | J. C. Hoyt | 238 | 1,015 | .745 | 904 |
| 1905. | | | | | |
| Mar. 11 | A. H. Horton | 268 | 2,498 | 6.38 | 5,853 |
| July 22 | N. C. Grover | 250 | 1,514 | 2.71 | 2,610 |
| Sept. 8 | Bolster and Winter | 244 | 1,280 | 1.78 | 1,734 |
| 1906. | | | | | |
| June 9 | | 252 | 1,310 | 2.13 | 1,850 |

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT SOUTH BOSTON, VA., FOR 1900.

| Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.62 | 1.50 | 2.00 | 3.00 | 17 | 8.55 | 2.40 | 1.70 | 3.00 |
| 2 | .55 | 1.50 | 2.20 | 3.00 | 18 | 3.60 | 2.40 | 1.70 | 3.00 |
| 3 | .95 | 1.50 | 2.00 | 3.00 | 19 | 2.00 | 2.00 | 1.70 | 2.90 |
| 4 | .95 | 1.50 | 2.40 | 4.00 | 20 | 1.65 | 2.00 | 1.70 | 2.90 |
| 5 | .60 | 1.40 | 2.10 | 14.10 | 21 | 1.25 | 1.90 | 1.70 | 3.00 |
| 6 | .95 | 1.30 | 2.50 | 8.00 | 22 | 1.55 | 2.00 | 1.70 | 3.10 |
| 7 | .77 | 1.90 | 2.70 | 4.80 | 23 | 1.30 | 2.00 | 1.60 | 3.10 |
| 8 | .90 | 1.90 | 2.50 | 3.80 | 24 | 1.70 | 2.30 | 1.60 | 3.10 |
| 9 | .37 | 2.40 | 2.50 | 3.50 | 25 | 1.70 | 7.50 | 1.60 | 3.00 |
| 10 | .40 | 2.40 | 2.40 | 3.20 | 26 | 1.50 | 3.50 | 2.20 | 3.00 |
| 11 | .50 | 2.40 | 2.00 | 3.20 | 27 | 1.60 | 3.50 | 5.60 | 3.00 |
| 12 | .30 | 2.20 | 2.00 | 3.20 | 28 | 1.40 | 2.50 | 3.80 | 3.20 |
| 13 | .40 | 2.20 | 2.00 | 3.20 | 29 | 1.30 | 2.50 | 3.20 | 3.00 |
| 14 | .45 | 2.30 | 1.90 | 3.10 | 30 | 1.30 | 2.00 | 3.00 | 2.70 |
| 15 | .40 | 2.00 | 1.90 | 2.90 | 31 | | 2.00 | | 2.80 |
| 16 | 4.90 | 2.00 | 1.80 | 2.90 | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT SOUTH BOSTON, VA., FOR 1901 AND 1902.

| 1901. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.60 | 3.00 | 2.20 | 4.50 | 3.50 | 4.00 | 2.80 | 3.60 | 5.20 | 5.10 | 2.50 | 2.60 |
| 2 | 4.00 | 3.30 | 2.20 | 4.50 | 3.30 | 3.80 | 2.80 | 2.90 | 5.00 | 4.90 | 2.50 | 2.60 |
| 3 | 3.00 | 3.30 | 2.20 | 18.35 | 3.30 | 3.60 | 3.00 | 2.70 | 4.20 | 4.80 | 2.50 | 3.00 |
| 4 | 2.40 | 3.20 | 2.20 | 21.75 | 3.20 | 3.80 | 2.90 | 2.40 | 4.10 | 4.40 | 2.50 | 4.10 |
| 5 | 2.40 | 3.20 | 2.20 | 14.40 | 3.20 | 3.50 | 2.80 | 2.65 | 3.80 | 4.10 | 2.50 | 4.70 |
| 6 | 2.40 | 3.10 | 2.30 | ------- | 3.20 | 3.40 | 2.80 | 10.15 | 3.60 | 3.30 | 2.50 | 4.50 |
| 7 | 2.40 | 3.00 | 2.30 | 6.50 | 3.10 | 3.20 | 2.90 | 19.25 | 3.30 | 2.80 | 2.50 | 3.60 |
| 8 | 2.40 | 3.00 | 2.20 | 6.00 | 3.10 | 3.30 | 3.00 | 21.20 | 3.20 | 2.80 | 2.50 | 3.00 |
| 9 | 2.40 | 3.50 | 2.20 | 4.20 | 3.00 | 3.00 | 3.00 | 8.00 | 3.10 | 2.80 | 2.50 | 2.90 |
| 10 | 2.40 | 3.50 | 2.60 | 3.20 | 3.00 | 2.80 | 2.90 | 5.20 | 3.00 | 2.70 | 2.50 | 2.90 |
| 11 | 2.70 | 3.40 | 2.60 | 3.20 | 3.00 | 2.70 | 2.90 | 4.60 | 3.10 | 3.00 | 2.50 | 4.10 |
| 12 | 7.50 | 3.00 | 2.60 | 3.20 | 3.00 | 2.90 | 3.00 | 9.10 | 3.10 | 3.10 | 2.50 | 4.80 |
| 13 | 16.95 | 2.80 | 2.20 | 3.20 | 3.50 | 2.80 | 3.00 | 13.05 | 3.10 | 3.10 | 2.50 | 3.00 |
| 14 | 7.70 | 2.50 | 2.10 | 3.20 | 3.10 | 2.80 | 18.00 | 17.10 | 3.00 | 3.30 | 2.40 | 2.80 |
| 15 | 7.50 | 2.30 | 2.00 | 3.60 | 3.20 | 2.70 | 23.10 | 18.85 | 2.90 | 3.00 | 2.40 | 11.80 |
| 16 | 7.20 | 2.10 | 2.00 | 3.60 | 3.00 | 2.60 | 19.00 | 15.00 | 2.80 | 2.90 | 2.40 | 17.35 |
| 17 | 3.40 | 2.00 | 2.20 | 3.60 | 3.00 | 2.70 | 16.00 | 10.40 | 3.10 | 2.90 | 2.30 | 7.45 |
| 18 | 3.20 | 2.00 | 2.20 | 4.80 | 3.00 | 2.70 | 10.00 | 10.80 | 6.10 | 2.70 | 2.30 | 4.90 |
| 19 | 2.90 | 2.00 | 2.20 | 4.80 | 3.00 | 2.70 | 5.00 | 11.00 | 5.90 | 2.60 | 2.30 | 4.10 |
| 20 | 2.90 | 2.00 | 2.20 | 4.80 | 3.20 | 3.00 | 4.90 | 7.90 | 5.20 | 2.60 | 2.30 | 3.70 |
| 21 | 2.80 | 2.00 | 2.00 | 9.20 | 6.00 | 2.90 | 4.00 | 8.40 | 3.60 | 2.60 | 2.30 | 3.20 |
| 22 | 2.80 | 2.50 | 2.00 | 11.70 | 21.50 | 2.90 | 3.00 | 6.40 | 3.60 | 2.60 | 2.20 | 3.00 |
| 23 | 2.80 | 2.50 | 2.00 | 8.00 | 23.45 | 2.90 | 3.00 | 6.10 | 3.30 | 2.60 | 2.20 | 3.20 |
| 24 | 2.70 | 2.10 | 2.30 | 6.50 | 22.75 | 2.80 | 3.00 | 5.70 | 3.00 | 2.50 | 4.00 | 3.50 |
| 25 | 2.60 | 2.10 | 2.50 | 5.00 | 12.00 | 2.70 | 3.00 | 5.30 | 3.00 | 2.50 | 4.70 | 3.80 |
| 26 | 2.60 | 2.10 | 6.30 | 3.30 | 9.20 | 2.50 | 3.00 | 5.40 | 3.10 | 2.40 | 3.80 | 4.30 |
| 27 | 2.60 | 2.10 | 18.00 | 3.30 | 9.00 | 2.50 | 3.20 | 17.90 | 3.10 | 2.40 | 2.80 | 6.40 |
| 28 | 2.60 | 2.10 | 16.00 | 3.20 | 7.60 | 2.70 | 3.20 | 9.90 | 3.20 | 2.40 | 2.60 | 8.70 |
| 29 | 2.90 | ------- | 6.50 | 3.10 | 6.00 | 2.80 | 2.90 | 6.45 | 3.20 | 2.40 | 2.60 | 10.90 |
| 30 | 3.20 | ------- | 6.50 | 3.10 | 5.00 | 2.80 | 3.20 | 5.40 | 5.40 | 2.40 | 2.60 | 20.45 |
| 31 | 3.00 | ------- | 5.20 | ------- | 4.00 | ------- | 3.80 | 4.85 | ------- | 2.40 | ------ | 24.85 |
| 1902. | | | | | | | | | | | | |
| 1 | 19.50 | 8.70 | 18.35 | 7.75 | 5.30 | 3.90 | 4.75 | 1.40 | 1.10 | 2.70 | 1.70 | 4.50 |
| 2 | 8.00 | 13.10 | 15.10 | 6.60 | 5.05 | 3.85 | 4.45 | 1.40 | 1.10 | 2.60 | 1.80 | 7.30 |
| 3 | 6.70 | 14.20 | 11.00 | 5.90 | 4.75 | 3.70 | 4.20 | 1.35 | 1.20 | 2.60 | 1.80 | 10.70 |
| 4 | 6.00 | 8.50 | 8.15 | 5.50 | 4.55 | 3.60 | 4.00 | 1.45 | 1.20 | 2.50 | 1.90 | 13.20 |
| 5 | 5.20 | 6.70 | 7.80 | 5.50 | 4.55 | 3.50 | 3.90 | 1.30 | 1.30 | 6.80 | 1.90 | 9.65 |
| 6 | 4.60 | 5.50 | 8.60 | 5.50 | 4.90 | 3.35 | 2.60 | 1.20 | 1.40 | 7.25 | 2.00 | 10.95 |
| 7 | 4.60 | 5.30 | 7.40 | 5.50 | 5.00 | 3.05 | 2.00 | 1.20 | 1.50 | 6.90 | 2.30 | 10.65 |
| 8 | 4.70 | 5.20 | 6.55 | 7.75 | 5.05 | 2.90 | 1.90 | 1.20 | 1.60 | 6.40 | 2.30 | 6.85 |
| 9 | 4.60 | 4.90 | 6.50 | 9.45 | 5.25 | 2.90 | 1.70 | 1.20 | 1.70 | 5.90 | 2.30 | 4.55 |
| 10 | 4.50 | 4.50 | 6.50 | 7.20 | 4.95 | 3.05 | 2.60 | 1.10 | 1.70 | 6.15 | 2.30 | 4.10 |
| 11 | 4.40 | 4.10 | 6.00 | 6.55 | 4.65 | 3.20 | 3.20 | 1.10 | 1.60 | 6.75 | 2.20 | 4.10 |
| 12 | 4.10 | 4.00 | 5.65 | 6.05 | 4.60 | 3.10 | 2.90 | 1.20 | 1.40 | 7.90 | 2.20 | 4.10 |
| 13 | 3.80 | 3.90 | 5.20 | 5.60 | 4.70 | 3.00 | 2.10 | 1.20 | 1.30 | 8.50 | 2.20 | 4.00 |
| 14 | 3.60 | 3.80 | 4.70 | 5.50 | 4.70 | 3.00 | 1.65 | 1.30 | 1.20 | 8.10 | 2.20 | 4.00 |
| 15 | 3.50 | 3.80 | 5.10 | 5.40 | 4.70 | 2.90 | 1.30 | 1.60 | 1.10 | 5.70 | 2.30 | 4.00 |
| 16 | 3.70 | 3.90 | 5.70 | 5.35 | 4.85 | 3.40 | 1.30 | 1.80 | 1.00 | 3.70 | 2.30 | 4.00 |
| 17 | 4.00 | 4.00 | 8.20 | 5.45 | 5.05 | 8.30 | 1.40 | 1.70 | .90 | 2.50 | 2.50 | 3.90 |
| 18 | 3.80 | 4.10 | 7.70 | 5.75 | 5.45 | 16.45 | 1.50 | 1.30 | .80 | 2.10 | 2.60 | 3.65 |
| 19 | 3.50 | 3.80 | 7.20 | 5.80 | 5.25 | 8.85 | 1.40 | 1.20 | .70 | 1.80 | 2.60 | 3.45 |
| 20 | 3.80 | 4.00 | 6.30 | 5.65 | 5.05 | 5.00 | 1.30 | 1.10 | .70 | 1.80 | 2.60 | 3.30 |
| 21 | 4.80 | 4.10 | 6.00 | 5.55 | 4.90 | 4.45 | 1.30 | 1.20 | .70 | 1.80 | 2.70 | 3.15 |
| 22 | 5.65 | 5.20 | 5.50 | 5.30 | 4.80 | 3.35 | 1.30 | 1.30 | 1.00 | 1.70 | 2.70 | 3.00 |
| 23 | 7.75 | 6.10 | 5.65 | 5.05 | 4.95 | 3.00 | 1.20 | 1.65 | 1.50 | 1.60 | 2.80 | 3.00 |
| 24 | 5.30 | 7.20 | 5.80 | 4.90 | 5.10 | 2.90 | 1.10 | 1.70 | 2.60 | 1.60 | 2.70 | 2.90 |
| 25 | 5.20 | 13.35 | 5.70 | 4.80 | 5.10 | 2.90 | 1.10 | 1.45 | 3.05 | 1.50 | 2.70 | 2.80 |
| 26 | 5.10 | 18.55 | 5.10 | 4.70 | 5.10 | 2.80 | 1.05 | 1.15 | 4.20 | 1.40 | 2.50 | 2.80 |
| 27 | 5.00 | 18.40 | 5.00 | 4.85 | 5.00 | 2.80 | 1.10 | 1.00 | 4.35 | 1.50 | 2.40 | 2.80 |
| 28 | 4.80 | 12.85 | 5.15 | 4.95 | 4.65 | 3.45 | 1.30 | 1.00 | 3.75 | 1.60 | 2.30 | 2.80 |
| 29 | 4.80 | ------- | 9.35 | 5.70 | 4.45 | 4.30 | 1.30 | 1.00 | 3.15 | 1.70 | 2.65 | 2.90 |
| 30 | 4.90 | ------- | 15.80 | 5.20 | 4.15 | 4.85 | 1.30 | 1.10 | 2.90 | 1.70 | 3.30 | 2.90 |
| 31 | 4.90 | ------- | 12.05 | ------- | 4.00 | ------- | 1.30 | 1.10 | ------- | 1.70 | ------ | 2.90 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT SOUTH BOSTON, VA., FOR 1903 AND 1904.

| 1903 (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 3.90 | 8.20 | 11.65 | 5.20 | 7.40 | 6.65 | 1.90 | (*) | 1.32 | 1.35 | 1.65 |
| 2 | 4.25 | 3.90 | 7.75 | 7.95 | 5.15 | 6.20 | 5.00 | 2.30 | 2.00 | 1.22 | 1.42 | 1.60 |
| 3 | 12.05 | 3.90 | 6.35 | 7.15 | 4.80 | 4.30 | 3.50 | 2.60 | (*) | 1.20 | 1.40 | 1.62 |
| 4 | 18.80 | 5.45 | 5.65 | 7.75 | 4.50 | 3.90 | 3.10 | 2.90 | (*) | 1.10 | 1.60 | 1.65 |
| 5 | 15.55 | †15.95 | 5.15 | 8.10 | 4.50 | 3.90 | 7.25 | 4.45 | (*) | 1.20 | 2.90 | 1.67 |
| 6 | 9.10 | 11.70 | 4.95 | 6.90 | 4.50 | 4.85 | 12.45 | 4.30 | (*) | 1.22 | 3.40 | 1.62 |
| 7 | 6.90 | 8.85 | 4.90 | 6.10 | 4.50 | 8.30 | 14.00 | 4.50 | (*) | 1.30 | 2.75 | 1.62 |
| 8 | 5.90 | 8.25 | 4.90 | 12.45 | 4.30 | 14.55 | 9.35 | 2.60 | (*) | 1.65 | 1.90 | 1.48 |
| 9 | 5.25 | 7.25 | 5.15 | ‡16.80 | 4.30 | 7.20 | 3.75 | 2.40 | (*) | 3.15 | 1.72 | 1.38 |
| 10 | 4.95 | 6.75 | 5.35 | 13.95 | 4.30 | 5.75 | 2.50 | 2.30 | (*) | 3.85 | 1.70 | 1.45 |
| 11 | 4.70 | 6.85 | 6.05 | 9.05 | 4.15 | 11.30 | 2.40 | 2.20 | (*) | 1.90 | 1.65 | 1.58 |
| 12 | 5.10 | 14.20 | 8.05 | 6.90 | 3.88 | 12.55 | 2.40 | 2.80 | (*) | 1.45 | 1.55 | 1.65 |
| 13 | 5.00 | 10.40 | 8.50 | 6.55 | 3.85 | 5.75 | 6.30 | 2.50 | (*) | 1.40 | 1.48 | 1.67 |
| 14 | 4.80 | 6.90 | 7.35 | 6.90 | 3.80 | 4.05 | 12.40 | 2.50 | 1.50 | 1.35 | 1.45 | 1.70 |
| 15 | 4.70 | 6.10 | 6.60 | 7.10 | 3.80 | 3.50 | 8.90 | 2.95 | (*) | 1.32 | 1.57 | 1.67 |
| 16 | 4.50 | 5.55 | 5.90 | 7.10 | 3.80 | 3.35 | 4.75 | 3.20 | (*) | 1.28 | 1.55 | 1.67 |
| 17 | 4.40 | 18.35 | 5.20 | 6.90 | 3.80 | 3.15 | 2.85 | 3.40 | (*) | 1.42 | 1.42 | 1.67 |
| 18 | 4.40 | °22.00 | 4.70 | 6.50 | 3.80 | 2.85 | 2.70 | 4.30 | 8.40 | 1.70 | 3.60 | 1.67 |
| 19 | 4.40 | 19.20 | 4.30 | 6.50 | 3.35 | 6.00 | 2.60 | 7.05 | 4.10 | 2.42 | 4.47 | 1.65 |
| 20 | 4.40 | 12.30 | 4.20 | 6.40 | 2.95 | 9.17 | 2.55 | (*) | 2.35 | 2.15 | 2.30 | 1.70 |
| 21 | 4.50 | 6.55 | 4.65 | 6.30 | 2.90 | 9.05 | 2.50 | (*) | 1.85 | 1.65 | 1.72 | 1.67 |
| 22 | 4.85 | 5.55 | 15.45 | 6.30 | 2.90 | 5.95 | 2.25 | (*) | 1.70 | 1.18 | 1.72 | 1.57 |
| 23 | 4.65 | 5.25 | 21.05 | 6.30 | 2.80 | 4.30 | 1.95 | (*) | 1.60 | 1.50 | 1.72 | 1.52 |
| 24 | 4.45 | 4.85 | 23.15 | 6.30 | 2.75 | 3.70 | 1.90 | (*) | 1.45 | 1.40 | 1.55 | 1.55 |
| 25 | 4.20 | 4.70 | 21.70 | 6.30 | 2.95 | 3.20 | 1.80 | (*) | 1.38 | 1.35 | 1.58 | 1.40 |
| 26 | 4.20 | 4.45 | 11.70 | 6.30 | 3.10 | 2.85 | 1.70 | (*) | 1.35 | 1.48 | 1.57 | 1.40 |
| 27 | 4.20 | 4.30 | 7.85 | 9.80 | 3.30 | 2.70 | 1.60 | 1.40 | 1.35 | 1.52 | 1.58 | 1.55 |
| 28 | 4.10 | 4.65 | 6.40 | 8.70 | 4.70 | 2.60 | 1.60 | (*) | 1.35 | 1.45 | 1.58 | 6.95 |
| 29 | 4.10 | ------ | 5.80 | 7.15 | 8.20 | 5.67 | 1.50 | (*) | 1.35 | 1.42 | 1.62 | 5.00 |
| 30 | 4.00 | ------ | 11.00 | 5.45 | 9.25 | 7.75 | 1.55 | (*) | 1.35 | 1.30 | 1.72 | 2.00 |
| 31 | 4.00 | ------ | 12.05 | ------ | 9.30 | ------ | 1.90 | (*) | ------ | 1.48 | ------ | 1.62 |
| 1904. | | | | | | | | | | | | |
| 1 | 1.95 | 2.15 | 2.40 | 2.25 | 2.30 | 3.20 | 3.10 | 4.67 | 1.25 | 1.28 | 0.35 | 1.38 |
| 2 | 1.85 | 1.80 | 2.20 | 2.25 | 1.80 | 4.99 | 2.90 | 4.60 | 2.37 | .72 | .68 | 1.48 |
| 3 | 2.10 | 2.05 | 2.15 | 2.20 | 1.40 | 5.45 | 2.47 | 5.00 | 4.75 | .20 | .98 | 1.95 |
| 4 | 1.75 | 1.90 | 2.30 | 2.00 | 1.70 | 3.55 | 1.95 | 3.77 | 4.02 | .42 | 1.02 | 2.65 |
| 5 | 1.62 | 2.10 | 2.25 | 1.75 | 1.45 | 2.45 | 1.35 | 2.00 | 2.79 | .47 | 1.02 | 3.98 |
| 6 | §.55 | 2.25 | 2.35 | 1.65 | 1.40 | 1.80 | .92 | 1.67 | 2.10 | .95 | .72 | 5.18 |
| 7 | .62 | 2.20 | 3.50 | 1.75 | 1.90 | 2.65 | .87 | 1.57 | 1.30 | .67 | .42 | 4.62 |
| 8 | 1.45 | 6.10 | 4.55 | 1.80 | 1.80 | 3.15 | 1.57 | 4.80 | .95 | .37 | .68 | 3.68 |
| 9 | 2.07 | 6.05 | 4.95 | 1.70 | 1.65 | 2.55 | 1.05 | 7.25 | 1.72 | .15 | 1.12 | 2.70 |
| 10 | 1.90 | 3.80 | 4.20 | 1.90 | 1.80 | 1.95 | .92 | 11.15 | 1.32 | .02 | 1.18 | 1.92 |
| 11 | 2.05 | 2.95 | 3.25 | 1.95 | 1.80 | 1.80 | 1.32 | 9.70 | 1.05 | .05 | 1.20 | 1.52 |
| 12 | 2.17 | 2.70 | 2.65 | 1.70 | 1.80 | 3.55 | 1.55 | 6.15 | .92 | .62 | 1.02 | 1.42 |
| 13 | 2.07 | 2.05 | 2.60 | 1.50 | 1.50 | 4.85 | 1.60 | 3.75 | 1.47 | .63 | 1.78 | 1.68 |
| 14 | 2.00 | 1.90 | 2.50 | 1.40 | 1.50 | 2.63 | 1.42 | 2.65 | 3.97 | .65 | 2.88 | 1.55 |
| 15 | 1.82 | 2.15 | 2.45 | 1.40 | 2.40 | 1.73 | 1.22 | 1.82 | 10.75 | .68 | 2.38 | 1.58 |
| 16 | 1.55 | 2.30 | 2.40 | 1.40 | 2.40 | 1.43 | 1.22 | 1.52 | 9.05 | .28 | 1.68 | 1.68 |
| 17 | 1.45 | 1.55 | 2.25 | 1.45 | 3.70 | 1.40 | .87 | 1.27 | 3,27 | .02 | 1.58 | 1.72 |
| 18 | 1.42 | 1.60 | 2.10 | 1.40 | 4.05 | 1.33 | .65 | 1.37 | 1.82 | .25 | 1.48 | 1.68 |
| 19 | 1.55 | 2.05 | 2.05 | 1.35 | 8.00 | 1.30 | .92 | 1.40 | 1.07 | .70 | 1.42 | 1.20 |
| 20 | 1.27 | 4.20 | 2.10 | 1.35 | 4.40 | 1.23 | .67 | 1.52 | 1.37 | .62 | .88 | 1.38 |
| 21 | 1.45 | 4.00 | 1.80 | 1.30 | 2.70 | 2.50 | .68 | 1.37 | 1.37 | .52 | .48 | 1.68 |
| 22 | 1.70 | 8.50 | 1.65 | 1.30 | 2.25 | 2.05 | .77 | 3.77 | 1.37 | 1.42 | .58 | 1.58 |
| 23 | 2.85 | 11.05 | 2.10 | 1.30 | 1.70 | 1.78 | 2.15 | 3.37 | 1.37 | .68 | 1.62 | 1.50 |
| 24 | 3.00 | 8.05 | 5.45 | 1.30 | 1.60 | 1.48 | 4.67 | 2.27 | 1.37 | .38 | 1.52 | 1.62 |
| 25 | 2.90 | 4.55 | 9.70 | 1.30 | 1.55 | 1.28 | 6.30 | 1.50 | 1.12 | .35 | 1.50 | 1.62 |
| 26 | 2.10 | 3.80 | 5.30 | 1.35 | 1.50 | 1.02 | 2.50 | 1.37 | 1.13 | 1.18 | 1.40 | 1.95 |
| 27 | 1.95 | 3.05 | 4.05 | 1.60 | 1.35 | .85 | 2.05 | 1.27 | 1.32 | 1.05 | .82 | 2.35 |
| 28 | 1.75 | 3.15 | 3.80 | 2.35 | 1.30 | 1.32 | 2.10 | 1.05 | 1.32 | .85 | .38 | 2.10 |
| 29 | .82 | 2.55 | 3.55 | 3.25 | 1.15 | 1.95 | 2.97 | .72 | 1.28 | .68 | 1.18 | 1.98 |
| 30 | .88 | ------ | 2.80 | 2.80 | 1.10 | 2.77 | 4.17 | .85 | 1.22 | .45 | 1.42 | 1.78 |
| 31 | 1.08 | ------ | 2.45 | ------ | 1.00 | ------ | 4.52 | 1.07 | ------ | .28 | ------ | 1.75 |

*No record.
†Highest record, 16.2 at 10 a. m.
‡Highest record, 17.7 at 4 p. m.
°Highest record, 22.5 at 4 p. m.
§Ice.

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT SOUTH BOSTON, VA., FOR 1905-1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.69 | 1.17 | 4.55 | 1.70 | 2.05 | 7.48 | 1.45 | 2.48 | 1.35 | 1.28 | 1.40 | 1.55 |
| 2 | 1.59 | 1.25 | 4.07 | 1.62 | 1.82 | 3.68 | 1.50 | 1.95 | 3.30 | .80 | 1.40 | 1.40 |
| 3 | 1.87 | 1.15 | 3.75 | 1.58 | 2.68 | 2.98 | 1.60 | 2.10 | 6.98 | 1.30 | 1.42 | 1.48 |
| 4 | 1.92 | .95 | 3.55 | 1.62 | 4.95 | 2.60 | 2.72 | 1.98 | 4.65 | 1.30 | 1.25 | 2.80 |
| 5 | 1.65 | .95 | 3.29 | 3.12 | 3.22 | 2.18 | 3.50 | 2.40 | 3.40 | 1.30 | 1.15 | 5.25 |
| 6 | 3.35 | 1.22 | 2.85 | 7.52 | 2.48 | 1.80 | 8.35 | 2.78 | 3.05 | 1.30 | 1.05 | 4.85 |
| 7 | 12.57 | 1.45 | 2.49 | 8.68 | 3.62 | 1.78 | 8.40 | 2.60 | 2.25 | 1.40 | .95 | 3.50 |
| 8 | 9.29 | 1.39 | 2.52 | 5.20 | 5.48 | 2.02 | 6.70 | 2.30 | 1.75 | 1.22 | .85 | 2.25 |
| 9 | 5.17 | 1.45 | 2.59 | 3.92 | 4.00 | 2.28 | 4.95 | 2.75 | 1.45 | 1.30 | 1.35 | 2.05 |
| 10 | 3.17 | 1.39 | 3.65 | 2.82 | 2.85 | 1.68 | 2.78 | 6.92 | 1.25 | .80 | 1.32 | 2.65 |
| 11 | 2.92 | 2.09 | 6.49 | 2.58 | 2.55 | 1.75 | 1.98 | 10.80 | 1.30 | 1.15 | 1.32 | 4.75 |
| 12 | 5.70 | 3.29 | 5.92 | 5.68 | 5.30 | 1.62 | 3.50 | 8.35 | 1.50 | 4.10 | 1.15 | 4.30 |
| 13 | 9.35 | 6.29 | 5.32 | 7.88 | 10.12 | 1.42 | 10.25 | 5.75 | 1.55 | 3.25 | .85 | 3.00 |
| 14 | 7.85 | 8.82 | 4.52 | 8.50 | 7.72 | 1.35 | 10.50 | 4.38 | 1.18 | 2.30 | .88 | 3.15 |
| 15 | 4.60 | 6.62 | 3.70 | 11.60 | 6.05 | 1.30 | 8.68 | 4.00 | 1.02 | 1.70 | 1.65 | 3.40 |
| 16 | 2.99 | 4.02 | 3.00 | 11.62 | 9.58 | 1.18 | 5.80 | 8.88 | 1.30 | 1.05 | 1.35 | 4.55 |
| 17 | 2.02 | 2.85 | 2.68 | 6.65 | 10.05 | 1.48 | 3.30 | 4.70 | 1.05 | 1.40 | 1.40 | 4.30 |
| 18 | 1.97 | 2.75 | 2.38 | 4.52 | 7.02 | 1.65 | 2.48 | 4.35 | 1.20 | 1.52 | 1.42 | 4.95 |
| 19 | 2.25 | 2.89 | 2.28 | 2.80 | 4.68 | 1.78 | 2.05 | 2.08 | 1.05 | 1.35 | 1.55 | 3.58 |
| 20 | 2.29 | 4.09 | 2.22 | 2.82 | 3.08 | 1.40 | 1.82 | 2.35 | 1.20 | 1.25 | 1.00 | 4.80 |
| 21 | 2.07 | 14.47 | 2.28 | 2.55 | 2.52 | 1.82 | 1.98 | .95 | 1.02 | 1.50 | 1.32 | 6.85 |
| 22 | 1.85 | 15.59 | 2.20 | 2.32 | 2.22 | 1.55 | 2.72 | 1.75 | 1.10 | 1.02 | 1.50 | 13.92 |
| 23 | 1.67 | 10.45 | 2.08 | 2.15 | 2.05 | 1.28 | 3.55 | 2.50 | .98 | 1.45 | 1.40 | 11.40 |
| 24 | 1.42 | 7.99 | 1.98 | 2.08 | 1.95 | 1.52 | 4.75 | 4.45 | 1.05 | 1.25 | 1.48 | 7.95 |
| 25 | 1.17 | 5.75 | 2.42 | 1.95 | 2.00 | 1.75 | 4.52 | 4.82 | 1.05 | 1.10 | 1.42 | 6.80 |
| 26 | 1.02 | 8.09 | 2.35 | 1.72 | 4.22 | 1.95 | 3.50 | 4.45 | 1.20 | 1.05 | 1.70 | 4.90 |
| 27 | .89 | 7.29 | 3.38 | 4.18 | 14.90 | 1.95 | 2.15 | 3.80 | 1.30 | 1.65 | 1.65 | 4.45 |
| 28 | .95 | 5.59 | 2.78 | 4.70 | 12.08 | 1.28 | 1.82 | 2.88 | 1.15 | 1.60 | 1.45 | 6.30 |
| 29 | .95 | ------- | 2.30 | 2.98 | 6.12 | 1.32 | 4.95 | 1.88 | 1.08 | 1.22 | 1.42 | 15.30 |
| 30 | .99 | ------- | 1.95 | 2.38 | 5.05 | 1.28 | 5.80 | 1.48 | 1.30 | 1.28 | 1.45 | 10.80 |
| 31 | .99 | ------- | 1.80 | ------- | 7.32 | ------- | 5.42 | 1.38 | ------- | 1.55 | ------ | 7.05 |
| 1906. | | | | | | | | | | | | |
| 1 | 4.25 | 2.9 | 4.28 | 8.75 | 2.6 | 1.68 | 2.6 | 3.35 | 4.18 | 2.55 | 3.0 | 1.98 |
| 2 | 3.95 | 2.25 | 4.12 | 5.75 | 2.3 | 1.38 | 2.28 | 4.2 | 4.25 | 5.85 | 3.1 | 2.08 |
| 3 | 4.55 | 2.25 | 4.35 | 4.5 | 2.4 | 1.45 | 2.0 | 3.4 | 4.05 | 3.95 | 2.85 | 2.02 |
| 4 | 15.1 | 2.05 | 5.0 | 4.4 | 2.55 | 1.58 | 2.05 | 3.65 | 5.95 | 4.15 | 2.55 | 2.05 |
| 5 | 19.7 | 3.75 | 5.65 | 3.8 | 2.18 | 1.55 | 2.18 | 3.25 | 4.6 | 8.75 | 2.35 | 2.15 |
| 6 | 18.0 | 4.3 | 4.8 | 3.52 | 2.3 | 1.4 | 3.7 | 3.75 | 3.88 | 7.32 | 2.3 | 2.35 |
| 7 | 9.6 | 3.02 | 3.82 | 2.7 | 3.48 | 1.6 | 3.95 | 3.3 | 3.28 | 4.95 | 2.08 | 2.4 |
| 8 | 6.6 | 3.85 | 3.45 | 3.08 | 3.95 | 1.65 | 4.0 | 3.08 | 2.85 | 3.6 | 2.18 | 2.22 |
| 9 | 5.62 | 4.65 | 3.42 | 3.7 | 3.02 | 1.75 | 3.5 | 3.32 | 2.62 | 2.5 | 2.22 | 2.28 |
| 10 | 3.75 | 4.5 | 3.1 | 5.25 | 2.2 | 3.65 | 3.45 | 3.2 | 2.15 | 1.25 | 2.4 | 2.42 |
| 11 | 3.35 | 3.8 | 2.75 | 5.1 | 2.25 | 4.82 | 3.05 | 4.08 | 1.82 | 1.1 | 2.35 | 2.52 |
| 12 | 4.2 | 3.6 | 2.3 | 4.08 | 2.35 | 3.58 | 2.75 | 4.4 | 1.9 | 1.18 | 2.6 | 2.55 |
| 13 | 3.4 | 3.18 | 2.58 | 3.45 | 2.5 | 2.7 | 2.22 | 4.75 | 1.85 | .95 | 2.55 | 2.62 |
| 14 | 5.0 | 3.18 | 2.9 | 3.88 | 2.18 | 2.12 | 2.28 | 5.45 | 2.15 | ------ | 2.3 | 2.72 |
| 15 | 6.35 | 2.9 | 3.65 | 4.8 | 1.78 | 1.78 | 2.95 | 6.48 | 2.02 | ------ | 2.52 | 2.6 |
| 16 | 4.3 | 2.6 | 5.15 | 5.7 | 1.85 | 1.8 | 3.08 | 7.72 | 2.3 | ------ | 2.42 | 2.65 |
| 17 | 5.35 | 2.95 | 4.65 | 4.5 | 1.82 | 3.1 | 3.18 | 10.8 | 2.3 | 2.75 | 2.55 | 2.75 |
| 18 | 4.45 | 2.9 | 3.5 | 3.58 | 1.92 | 3.92 | 3.7 | 15.6 | 2.2 | 2.8 | 2.75 | 2.8 |
| 19 | 4.1 | 2.7 | 4.05 | 3.18 | 2.05 | 3.42 | 4.05 | 18.5 | 2.25 | 4.65 | 2.8 | 2.62 |
| 20 | 3.65 | 2.55 | 4.0 | 2.88 | 1.92 | 5.78 | 4.95 | 17.0 | 2.48 | 7.12 | 3.05 | 2.52 |
| 21 | 3.05 | 2.65 | 5.95 | 2.68 | 1.85 | 4.7 | 6.75 | 13.7 | 3.85 | 12.75 | 3.18 | 2.42 |
| 22 | 3.85 | 3.5 | 5.9 | 2.58 | 1.98 | 3.6 | 10.0 | 8.9 | 4.42 | 8.4 | 3.2 | 2.35 |
| 23 | 7.9 | 2.32 | 4.05 | 2.7 | 1.85 | 3.9 | 12.5 | 7.68 | 3.9 | 6.5 | 2.55 | 2.22 |
| 24 | 12.3 | 2.35 | 3.25 | 2.58 | 1.42 | 3.65 | 10.3 | 6.08 | 3.38 | 5.05 | 2.55 | 2.3 |
| 25 | 8.35 | 2.5 | 4.3 | 2.52 | 1.8 | 3.42 | 8.0 | 4.85 | 3.22 | 4.6 | 2.35 | 2.18 |
| 26 | 6.9 | 2.55 | 3.8 | 2.55 | 2.35 | 3.35 | 7.75 | 4.08 | 3.15 | 4.12 | 2.22 | 2.12 |
| 27 | 6.0 | 2.75 | 4.25 | 2.42 | 3.0 | 6.6 | 6.65 | 4.18 | 2.5 | 3.9 | 2.15 | 2.02 |
| 28 | 8.85 | 4.12 | 4.9 | 2.32 | 3.5 | 3.5 | 7.48 | 4.18 | 1.9 | 3.8 | 2.1 | 2.02 |
| 29 | 9.4 | ------- | 4.6 | 2.88 | 3.45 | 2.55 | 5.35 | 4.65 | 2.12 | 3.85 | 2.05 | 2.12 |
| 30 | 7.68 | ------- | 8.3 | 2.85 | 1.7 | 2.42 | 3.7 | 4.95 | 1.98 | 3.92 | 1.92 | 4.75 |
| 31 | 6.3 | ------- | 11.3 | ------- | 1.55 | ------- | 3.4 | 4.02 | ------- | 3.75 | ------ | 10.7 |

NOTE.—Gage heights interpolated November 5-7, inclusive (1905).
NOTE.—Discharge probably unaffected by ice (1906).

DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT SOUTH BOSTON, VA., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | Day. | Jan. | Feb. | Mar. | Apr. | May. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11.20 | 2.42 | 5.30 | 2.90 | 4.08 | 16 | 2.35 | 2.72 | 10.00 | 2.70 | |
| 2 | 9.80 | 2.55 | 5.60 | 3.75 | 3.50 | 17 | 2.22 | 2.45 | 7.45 | 2.18 | |
| 3 | 7.95 | 2.42 | 5.20 | 3.95 | 3.02 | 18 | 2.08 | 2.25 | 4.95 | 2.28 | |
| 4 | 5.20 | 2.85 | 4.60 | 4.15 | 3.00 | 19 | 2.18 | 2.20 | 3.08 | 2.75 | |
| 5 | 3.35 | 3.02 | 4.30 | 4.45 | | 20 | 2.28 | 2.35 | 3.18 | 2.68 | |
| 6 | 3.10 | 3.18 | 4.55 | 5.05 | | 21 | 2.68 | 2.40 | 3.12 | 2.88 | |
| 7 | 2.88 | 3.18 | 4.02 | 6.20 | | 22 | 2.75 | 2.12 | 2.60 | 3.32 | |
| 8 | 2.70 | 3.22 | 4.45 | 6.95 | | 23 | 2.48 | 2.02 | 2.40 | 3.25 | |
| 9 | 2.62 | 3.55 | 5.80 | 6.20 | | 24 | 2.60 | 1.92 | 2.25 | 3.55 | |
| 10 | 2.50 | 3.78 | 6.25 | 5.05 | | 25 | 2.75 | 1.85 | 2.20 | 4.10 | |
| 11 | 2.48 | 4.05 | 6.30 | 4.25 | | 26 | 2.62 | 2.05 | 2.25 | 4.30 | |
| 12 | 2.22 | 4.10 | 6.00 | 3.28 | | 27 | 2.75 | 2.48 | 2.20 | 4.85 | |
| 13 | 2.12 | 4.25 | 4.35 | 2.98 | | 28 | 2.90 | 3.92 | 2.15 | 4.05 | |
| 14 | 2.25 | 2.95 | 4.90 | 2.80 | | 29 | 2.70 | | 2.08 | 5.15 | |
| 15 | 2.12 | 2.70 | 7.05 | 2.50 | | 30 | 2.35 | | 2.22 | 4.62 | |
| | | | | | | 31 | 2.15 | | 2.28 | | |

RATING TABLE FOR DAN RIVER AT SOUTH BOSTON, VA., FOR 1900 TO 1902.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.7 | 900 | 3.8 | 2,930 | 7.0 | 6,000 | 13.5 | 14,000 |
| .8 | 950 | 4.0 | 3,100 | 7.2 | 6,200 | 14.0 | 14,900 |
| 1.0 | 1,050 | 4.2 | 3,280 | 7.4 | 6,400 | 14.5 | 15,950 |
| 1.2 | 1,150 | 4.4 | 3,460 | 7.6 | 6,600 | 15.0 | 17,000 |
| 1.4 | 1,250 | 4.6 | 3,640 | 7.8 | 6,800 | 15.5 | 18,200 |
| 1.6 | 1,360 | 4.8 | 3,820 | 8.0 | 7,000 | 16.0 | 19,400 |
| 1.8 | 1,480 | 5.0 | 4,000 | 8.5 | 7,550 | 16.5 | 20,750 |
| 2.0 | 1,600 | 5.2 | 4,200 | 9.0 | 8,100 | 17.0 | 22,100 |
| 2.2 | 1,730 | 5.4 | 4,400 | 9.5 | 8,700 | 17.5 | 23,555 |
| 2.4 | 1,860 | 5.6 | 4,600 | 10.0 | 9,300 | 18.0 | 25,000 |
| 2.6 | 2,000 | 5.8 | 4,800 | 10.5 | 9,900 | 18.5 | 26,600 |
| 2.8 | 2,150 | 6.0 | 5,000 | 11.0 | 10,500 | 19.0 | 28,200 |
| 3.0 | 2,300 | 6.2 | 5,200 | 11.5 | 11,100 | 19.5 | 30,000 |
| 3.2 | 2,450 | 6.4 | 5,400 | 12.0 | 11,700 | 20.0 | 31,800 |
| 3.4 | 2,600 | 6.6 | 5,600 | 12.5 | 12,400 | | |
| 3.6 | 2,760 | 6.8 | 5,800 | 13.0 | 13,100 | | |

RATING TABLE FOR DAN RIVER AT SOUTH BOSTON, VA., FROM JANUARY 1 TO DECEMBER 31, 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.1 | 1,185 | 3.6 | 3,240 | 8.2 | 8,110 | 13.2 | 15,260 |
| 1.2 | 1,250 | 3.7 | 3,330 | 8.4 | 8,350 | 13.4 | 15,610 |
| 1.3 | 1,320 | 3.8 | 3,420 | 8.6 | 8,610 | 13.6 | 15,970 |
| 1.4 | 1,390 | 3.9 | 3,510 | 8.8 | 8,870 | 13.8 | 16,330 |
| 1.5 | 1,465 | 4.0 | 3,600 | 9.0 | 9,130 | 14.0 | 16,700 |
| 1.6 | 1,540 | 4.2 | 3,800 | 9.2 | 9,390 | 14.2 | 17,080 |
| 1.7 | 1,620 | 4.4 | 4,000 | 9.4 | 9,650 | 14.4 | 17,460 |
| 1.8 | 1,700 | 4.6 | 4,200 | 9.6 | 9,910 | 14.6 | 17,850 |
| 1.9 | 1,780 | 4.8 | 4,400 | 9.8 | 10,170 | 14.8 | 18,250 |
| 2.0 | 1,860 | 5.0 | 4,600 | 10.0 | 10,430 | 15.0 | 18,650 |
| 2.1 | 1,940 | 5.2 | 4,800 | 10.2 | 10,690 | 15.2 | 19,060 |
| 2.2 | 2,020 | 5.4 | 5,000 | 10.4 | 10,960 | 15.4 | 19,480 |
| 2.3 | 2,100 | 5.6 | 5,200 | 10.6 | 11,240 | 15.6 | 19,910 |
| 2.4 | 2,180 | 5.8 | 5,400 | 10.8 | 11,520 | 15.8 | 20,350 |
| 2.5 | 2,265 | 6.0 | 5,600 | 11.0 | 11,800 | 16.0 | 20,790 |
| 2.6 | 2,350 | 6.2 | 5,810 | 11.2 | 12,100 | 16.5 | 21,950 |
| 2.7 | 2,435 | 6.4 | 6,030 | 11.4 | 12,400 | 17.0 | 23,170 |
| 2.8 | 2,520 | 6.6 | 6,250 | 11.6 | 12,700 | 17.5 | 24,450 |
| 2.9 | 2,610 | 6.8 | 6,470 | 11.8 | 13,000 | 18.0 | 25,840 |
| 3.0 | 2,700 | 7.0 | 6,690 | 12.0 | 13,300 | 18.5 | 27,320 |
| 3.1 | 2,790 | 7.2 | 6,910 | 12.2 | 13,620 | 19.0 | 28,860 |
| 3.2 | 2,880 | 7.4 | 7,150 | 12.4 | 13,940 | 19.5 | 30,460 |
| 3.3 | 2,970 | 7.6 | 7,390 | 12.6 | 14,260 | 20.0 | 32,130 |
| 3.4 | 3,060 | 7.8 | 7,630 | 12.8 | 14,580 | 20.5 | 33,890 |
| 3.5 | 3,150 | 8.0 | 7,870 | 13.0 | 14,920 | 21.0 | 35,800 |

Tangent above 21 feet gage height. Differences above this point, 400 per tenth. Table well determined to 10 feet gage height. Above this point it is approximate.

STATION RATING TABLE FOR DAN RIVER AT SOUTH BOSTON, VA., FOR 1904, 1905 AND 1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.00 | 400 | 2.40 | 2,186 | 5.40 | 4,709 | 10.00 | 9,700 |
| 0.10 | 451 | 2.50 | 2,265 | 5.60 | 4,892 | 10.20 | 9,980 |
| 0.20 | 510 | 2.60 | 2,345 | 5.80 | 5,077 | 10.40 | 10,260 |
| 0.30 | 574 | 2.70 | 2,425 | 6.00 | 5,264 | 10.60 | 10,540 |
| 0.40 | 642 | 2.80 | 2,505 | 6.20 | 5,453 | 10.80 | 10,820 |
| 0.50 | 713 | 2.90 | 2,585 | 6.40 | 5,644 | 11.00 | 11,100 |
| 0.60 | 786 | 3.00 | 2,665 | 6.60 | 5,838 | 11.50 | 11,815 |
| 0.70 | 861 | 3.10 | 2,746 | 6.80 | 6,034 | 12.00 | 12,540 |
| 0.80 | 937 | 3.20 | 2,827 | 7.00 | 6,234 | 12.50 | 13,265 |
| 0.90 | 1,014 | 3.30 | 2,908 | 7.20 | 6,434 | 13.00 | 14,000 |
| 1.00 | 1,091 | 3.40 | 2,989 | 7.40 | 6,638 | 13.50 | 14,750 |
| 1.10 | 1,168 | 3.50 | 3,070 | 7.60 | 6,845 | 14.00 | 15,500 |
| 1.20 | 1,245 | 3.60 | 3,152 | 7.80 | 7,055 | 14.50 | 16,310 |
| 1.30 | 1,323 | 3.70 | 3,234 | 8.00 | 7,275 | 15.00 | 17,180 |
| 1.40 | 1,401 | 3.80 | 3,317 | 8.20 | 7,495 | 15.50 | 18,100 |
| 1.50 | 1,479 | 3.90 | 3,400 | 8.40 | 7,715 | 16.00 | 19,100 |
| 1.60 | 1,557 | 4.00 | 3,484 | 8.60 | 7,945 | 17.00 | 21,650 |
| 1.70 | 1,635 | 4.20 | 3,653 | 8.80 | 8,175 | 18.00 | 24,600 |
| 1.80 | 1,713 | 4.40 | 3,824 | 9.00 | 8,415 | 19.00 | 27,800 |
| 1.90 | 1,791 | 4.60 | 3,997 | 9.20 | 8,655 | 20.00 | 31,200 |
| 2.00 | 1,870 | 4.80 | 4,172 | 9.40 | 8,905 | 21.00 | 34,700 |
| 2.10 | 1,949 | 5.00 | 4,349 | 9.60 | 9,160 | 22.00 | 38,300 |
| 2.20 | 2,028 | 5.20 | 4,528 | 9.80 | 9,425 | 23.00 | 42,000 |
| 2.30 | 2,107 | ----- | ----- | ----- | ----- | ----- | ------ |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1903 to 1905 and is fairly well defined. The table has been extended below gage height 0.75 foot.

ESTIMATED MONTHLY DISCHARGE OF DAN RIVER AT SOUTH BOSTON, VA.

[Drainage area, 2,750 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | |
| September | 7,605 | 700 | 1,430 | 0.52 | 0.58 |
| October | 6,500 | 1,200 | 1,842 | .67 | .77 |
| November | 4,600 | 1,360 | 1,804 | .66 | .74 |
| December | 15,100 | 2,075 | 2,785 | 1.01 | 1.16 |
| 1901. | | | | | |
| January | 21,965 | 1,860 | 3,387 | 1.23 | 1.42 |
| February | 2,675 | 1,600 | 2,042 | .74 | .77 |
| March | 25,000 | 1,600 | 3,504 | 1.27 | 1.46 |
| April | 38,800 | 2,375 | 6,382 | 2.32 | 2.59 |
| May | 45,600 | 2,300 | 7,297 | 2.65 | 3.06 |
| June | 3,100 | 1,925 | 2,292 | .83 | .93 |
| July | 44,200 | 2,150 | 6,132 | 2.23 | 2.58 |
| August | 36,600 | 1,860 | 9,866 | 3.59 | 4.14 |
| September | 5,100 | 2,150 | 2,902 | 1.06 | 1.18 |
| October | 4,100 | 1,860 | 2,353 | .86 | .99 |
| November | 3,730 | 1,730 | 2,032 | .74 | .83 |
| December | 51,200 | 2,000 | 6,875 | 2.50 | 2.89 |
| The year | 51,200 | 1,600 | 4,589 | 1.67 | 22.84 |
| 1902. | | | | | |
| January | 30,000 | 2,675 | 4,738 | 1.72 | 1.98 |
| February | 26,760 | 2,930 | 7,105 | 2.58 | 2.69 |
| March | 26,120 | 3,730 | 7,269 | 2.64 | 3.04 |
| April | 8,640 | 3,730 | 4,834 | 1.76 | 1.96 |
| May | 4,450 | 3,100 | 3,876 | 1.41 | 1.63 |
| June | 20,615 | 2,150 | 3,535 | 1.29 | 1.44 |
| July | 3,775 | 1,075 | 1,713 | .62 | .71 |
| August | 1,480 | 1,050 | 1,197 | .44 | .51 |
| September | 3,415 | 900 | 1,545 | .56 | .62 |
| October | 7,550 | 1,250 | 3,158 | 1.15 | 1.33 |
| November | 2,525 | 1,420 | 1,842 | .67 | .75 |
| December | 13,460 | 2,150 | 4,186 | 1.52 | 1.75 |
| The year | 30,000 | 900 | 3,750 | 1.36 | 18.41 |
| 1903. | | | | | |
| January | 28,240 | 2,700 | 5,934 | 2.16 | 2.49 |
| February | 39,800 | 3,510 | 9,953 | 3.62 | 3.78 |
| March | 44,400 | 3,800 | 10,084 | 3.67 | 4.23 |
| April | 22,670 | 5,050 | 8,065 | 2.93 | 3.27 |
| May | 9,520 | 2,475 | 4,050 | 1.47 | 1.69 |
| June | 17,750 | 2,350 | 5,785 | 2.10 | 2.34 |
| July | 16,700 | 1,465 | 4,389 | 1.60 | 1.84 |
| August (1–19 and 27)* | ------ | ------ | 2,861 | 1.04 | .77 |
| September (15 days)* | ------ | ------ | 2,133 | .78 | .44 |
| October | 3,465 | 1,185 | 1,551 | .56 | .65 |
| November | 4,070 | 1,355 | 1,811 | .66 | .74 |
| December | 6,635 | 1,376 | 1,811 | .66 | .76 |

*No record for missing days.

ESTIMATED MONTHLY DISCHARGE OF DAN RIVER AT SOUTH BOSTON, VA.

[Drainage area, 2,750 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| January | 2,665 | 750 | 1,663 | 0.605 | 0.697 |
| February | 11,270 | 1,518 | 3,229 | 1.18 | 1.27 |
| March | 9,290 | 1,596 | 2,847 | 1.04 | 1.20 |
| April | 2,868 | 1,323 | 1,663 | .605 | .675 |
| May | 7,275 | 1,091 | 1,999 | .727 | .838 |
| June | 4,755 | 976 | 2,147 | .781 | .871 |
| July | 5,548 | 824 | 1,877 | .683 | .788 |
| August | 11,430 | 876 | 2,901 | 1.05 | 1.21 |
| September | 10,795 | 1,029 | 2,250 | .818 | .913 |
| October | 1,417 | 375 | 772 | .281 | .324 |
| November | 2,569 | 608 | 1,233 | .448 | .500 |
| December | 4,510 | 1,245 | 1,953 | .710 | .819 |
| The year | 11,430 | 375 | 2,045 | .744 | 10.11 |
| 1905. | | | | | |
| January | 13,370 | 1,006 | 3,004 | 1.09 | 1.26 |
| February | 18,270 | 1,052 | 4,563 | 1.66 | 1.73 |
| March | 5,730 | 1,713 | 2,635 | .958 | 1.10 |
| April | 11,990 | 1,541 | 3,992 | 1.45 | 1.62 |
| May | 17,160 | 1,729 | 4,845 | 1.76 | 2.03 |
| June | 6,720 | 1,230 | 1,867 | .679 | .758 |
| July | 10,400 | 1,440 | 3,927 | 1.43 | 1.65 |
| August | 10,820 | 1,385 | 3,382 | 1.23 | 1.42 |
| September | 6,214 | 1,076 | 1,709 | .621 | .693 |
| October | 3,568 | 937 | 1,463 | .532 | .613 |
| November | 1,635 | 976 | 1,337 | .486 | .542 |
| December | 17,720 | 1,401 | 5,020 | 1.83 | 2.11 |
| The year | 18,270 | 937 | 3,145 | 1.14 | 15.53 |
| 1906.* | | | | | |
| January | 30,200 | 2,700 | 7,160 | 2.60 | 3.00 |
| February | 4,040 | 1,910 | 2,750 | .999 | 1.04 |
| March | 11,500 | 2,110 | 3,960 | 1.44 | 1.66 |
| April | 8,120 | 2,120 | 3,320 | 1.21 | 1.35 |
| May | 3,440 | 1,420 | 2,130 | .774 | .89 |
| June | 5,840 | 1,380 | 2,650 | .963 | 1.07 |
| July | 13,300 | 1,870 | 4,250 | 1.55 | 1.79 |
| August | 26,200 | 2,730 | 6,410 | 2.33 | 2.69 |
| September | 5,220 | 1,730 | 2,670 | .971 | 1.08 |
| October | 13,600 | 1,050 | 3,870 | 1.41 | 1.63 |
| November | 2,830 | 1,810 | 2,270 | .825 | .92 |
| December | 10,700 | 1,850 | 2,480 | .902 | 1.04 |
| The year | 30,200 | 1,050 | 3,660 | 1.33 | 18.16 |
| 1907. | | | | | |
| January | 11,400 | 1,930 | 3,040 | 1.11 | 1.28 |
| February | 3,700 | 1,750 | 2,530 | .920 | .96 |
| March | 9,700 | 1,930 | 3,830 | 1.39 | 1.60 |
| April | 6,180 | 2,010 | 3,430 | 1.25 | 1.40 |

*NOTE.—Values for entire year are good.

### DAN RIVER AT MADISON, N. C.

This station was established May 14, 1903. It is located at the Southern Railway bridge about one-fourth mile from Madison and one-half mile above the mouth of Mayo River.

Above the station the channel is straight for about 600 feet and the velocity of the current is good. About 300 feet below the station the channel makes an abrupt turn. The right bank is low and overflows. There is a long trestle approach to the bridge on this side, and all water passes beneath the bridge and approaches. The left bank is low and overflows. A small stream enters from this side. The bed of the Dan is sandy, but is probably permanent. There is but one channel at all stages.

Discharge measurements are made from the upstream side of the covered wooden two-span railway bridge and its wooden approaches.

The standard chain gage is located on the upstream side of the bridge, in the sixth panel of the first span from the left end. The length of the chain from the end of the weight to the marker is 35.24 feet. The gage is read once each day by J. W. Ore. Bench mark No. 1 is the edge of the top of a large wire nail driven flush into the top corner of the wooden floor beam beneath the gage box on the upstream side of the bridge. The point is indicated by the letters "B. M." in white paint. Its elevation is 34.10 feet above gage zero. Bench mark No. 2 is a standard iron bench-mark post set in cleared level ground on the left (south) side of the railway track. It is 77 feet west of the end of the trestle and 9 feet south of the south rail of the track. Its elevation is 35.25 feet above gage zero.

DISCHARGE MEASUREMENTS OF DAN RIVER AT MADISON, N. C., IN 1903.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| May 14 | E W. Myers | 2.05 | 950 |
| May 14 | ----do | 2.07 | 1,002 |
| June 18 | ----do | 2.05 | 731 |
| June 18 | ----do | 2.05 | 742 |
| July 18 | B. S. Drane | 1.17 | 683 |
| July 18 | ----do | 1.14 | 626 |
| Aug. 26 | ----do | 1.16 | 527 |
| Oct. 1 | ----do | .86 | 367 |
| Oct. 1 | ----do | .86 | 396 |
| Nov. 18 | ----do | 2.31 | 817 |
| Dec. 21 | ----do | 2.07 | 748 |

DISCHARGE MEASUREMENTS OF DAN RIVER AT MADISON, N. C., IN 1904, 1905, 1906 AND 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Jan. 23 | B. S. Drane | 151 | 405 | 1.90 | 2.18 | 772 |
| Mar. 10 | do | 151 | 321 | 1.97 | 1.80 | 631 |
| Mar. 10 | do | 151 | 318 | 1.96 | 1.79 | 623 |
| Apr. 15 | do | 149 | 224 | 1.83 | 1.06 | 411 |
| Apr. 16 | do | 149 | 224 | 1.84 | 1.09 | 412 |
| June 6 | do | 150 | 196 | 1.81 | .90 | 356 |
| June 6 | do | 150 | 198 | 1.82 | .90 | 361 |
| June 7 | do | 152 | 344 | 1.98 | 1.90 | 682 |
| Sept. 26 | do | 148 | 159 | 1.59 | .50 | 254 |
| Sept. 27 | do | 148 | 159 | 1.59 | .52 | 254 |
| Dec. 19 | do | 148 | 150 | 1.85 | .58 | 278 |
| Dec. 20 | do | 148 | 159 | 1.98 | .65 | 314 |
| 1905. | | | | | | |
| Apr. 21 | B. S. Drane | 140 | 257 | 2.35 | 1.67 | 603 |
| Apr. 21 | do | 140 | 257 | 2.30 | 1.67 | 590 |
| Aug. 21 | do | 146 | 336 | 2.30 | 2.17 | 773 |
| Sept. 18 | do | 140 | 258 | 1.67 | 1.32 | 431 |
| 1906. | | | | | | |
| June 21 | W. E. Hall | 142 | 374 | 1.95 | 2.37 | 729 |
| 1907. | | | | | | |
| Mar. 26 | W. E. Hall | 139 | 282 | 2.00 | 1.70 | 568 |
| Sept. 5 | F. P. Thomas | 140 | 341 | 2.21 | 2.58 | 753 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT MADISON, N. C., FOR 1903.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 3.95 | 2.00 | 8.35 | 1.30 | 0.95 | 0.85 | 0.70 |
| 2 | ---------- | 2.70 | 1.85 | 2.35 | 1.15 | .85 | .85 | 1.00 |
| 3 | ---------- | 2.55 | 1.75 | 1.85 | 1.10 | .85 | .90 | .70 |
| 4 | ---------- | 2.20 | 1.70 | 1.80 | 1.05 | .85 | .85 | .85 |
| 5 | ---------- | 4.00 | 2.50 | 1.70 | 1.00 | .85 | 2.80 | 1.05 |
| 6 | ---------- | 3.60 | 3.15 | 3.35 | 1.00 | .90 | 1.50 | .90 |
| 7 | 17.25 | 17.00 | 2.75 | 1.70 | .90 | .85 | 1.00 | .70 |
| 8 | 4.80 | 4.80 | 1.80 | 1.35 | .90 | 2.00 | .95 | .90 |
| 9 | 4.20 | 4.20 | 1.65 | 1.30 | 4.65 | 2.30 | .90 | .95 |
| 10 | 5.65 | 5.65 | 1.60 | 1.30 | 1.30 | 1.10 | .95 | .90 |
| 11 | 3.45 | 3.45 | 1.65 | 1.70 | 1.10 | .95 | .90 | .75 |
| 12 | 3.00 | 3.00 | 1.75 | 1.75 | 1.10 | .90 | .95 | 1.00 |
| 13 | 2.55 | 2.55 | 6.10 | 1.10 | 1.00 | .90 | .90 | 1.15 |
| 14 | ---------- | 2.40 | 3.75 | 1.30 | 0.90 | 0.85 | 0.90 | 1.10 |
| 15 | 2.00 | 2.35 | 2.25 | 6.60 | .90 | .85 | .85 | 1.00 |
| 16 | 1.95 | 2.20 | 1.80 | 2.35 | .90 | .95 | .85 | .70 |
| 17 | 1.95 | 2.10 | 1.70 | 1.80 | 5.70 | 1.10 | 1.30 | .85 |
| 18 | 1.90 | 2.05 | 1.65 | 8.60 | 2.65 | 2.05 | 2.50 | .55 |
| 19 | 1.90 | 2.00 | 1.60 | 2.50 | 1.50 | 1.25 | 1.50 | .75 |
| 20 | 1.80 | 3.65 | 1.60 | 1.85 | 1.20 | 1.00 | 1.10 | 1.00 |
| 21 | 1.90 | 2.35 | 1.40 | 1.75 | 1.15 | 1.00 | 1.00 | 2.25 |
| 22 | 1.75 | 2.00 | 1.35 | 1.70 | 1.10 | .90 | 1.05 | 1.35 |
| 23 | 1.70 | 3.90 | 2.00 | 1.60 | 1.05 | .90 | .95 | 1.15 |
| 24 | 1.60 | 2.10 | 1.40 | 1.30 | 1.05 | .95 | 1.00 | 1.10 |
| 25 | 1.80 | 2.00 | 1.25 | 1.25 | 1.00 | .85 | .95 | 1.15 |
| 26 | 2.00 | 3.85 | 1.25 | 1.15 | .95 | .80 | .95 | 1.45 |
| 27 | 1.90 | 7.05 | 1.20 | 1.20 | .95 | .80 | .80 | 1.20 |
| 28 | 3.00 | 2.80 | 1.10 | 1.10 | 1.00 | .80 | .75 | 1.10 |
| 29 | 4.10 | 2.75 | 2.50 | 1.05 | .95 | .85 | .90 | 1.00 |
| 30 | 2.75 | 2.20 | 2.15 | 2.00 | .90 | .85 | .90 | .85 |
| 31 | 2.65 | ---------- | 2.00 | 1.30 | ---------- | .80 | ---------- | .75 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT MADISON, N. C., FOR 1904-1905.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.90 | 1.00 | 1.50 | 1.65 | 1.00 | 2.40 | 1.80 | 1.20 | 1.50 | 0.35 | 0.30 | 0.50 |
| 2 | .95 | .55 | 1.50 | 1.55 | 1.00 | 2.70 | 1.20 | 3.80 | 1.85 | .30 | .30 | .45 |
| 3 | 1.00 | .95 | 1.45 | 1.40 | 1.00 | 1.90 | .85 | 3.25 | 1.50 | .30 | .30 | 1.45 |
| 4 | .60 | .80 | 1.40 | 1.30 | 1.00 | 1.45 | .75 | 1.85 | 1.20 | .30 | .35 | 1.10 |
| 5 | .55 | .80 | 1.35 | 1.25 | .90 | 1.10 | .70 | 1.00 | 1.40 | .30 | .80 | .75 |
| 6 | .65 | 1.35 | 1.20 | 1.20 | .90 | .90 | .90 | 2.20 | 1.10 | .30 | .70 | 2.50 |
| 7 | 1.00 | 1.60 | 1.40 | 1.40 | .90 | 2.30 | 1.00 | 5.40 | .80 | .30 | .40 | 1.50 |
| 8 | 1.00 | 4.05 | 4.80 | 1.60 | 2.00 | 1.20 | .80 | 3.60 | .80 | .25 | .40 | 1.20 |
| 9 | .85 | 2.35 | 2.45 | 1.50 | 1.55 | 1.10 | .70 | 2.20 | .80 | .20 | .40 | .80 |
| 10 | .90 | 1.60 | 1.90 | 1.60 | 1.80 | .80 | .75 | 5.20 | .70 | .20 | .40 | .75 |
| 11 | 1.10 | 1.20 | 1.70 | 1.30 | 1.35 | 4.00 | 1.00 | 2.80 | 1.00 | .20 | .35 | .65 |
| 12 | 1.00 | 1.20 | 1.55 | 1.25 | 1.10 | 3.10 | 1.10 | 2.20 | .80 | .20 | .30 | .60 |
| 13 | 1.10 | 1.10 | 1.40 | 1.10 | 1.00 | 2.00 | 1.35 | 1.60 | .60 | .20 | .50 | .55 |
| 14 | 1.00 | 1.25 | 1.45 | 1.15 | .90 | 1.30 | .90 | 1.20 | 1.00 | .20 | .50 | .50 |
| 15 | .75 | 1.30 | 1.60 | 1.10 | 1.60 | 1.10 | .50 | 1.10 | 1.00 | .20 | .55 | .50 |
| 16 | .70 | 1.20 | 1.35 | 1.15 | 1.10 | .90 | .40 | 3.70 | 1.20 | .20 | .60 | .50 |
| 17 | .90 | .80 | 1.10 | 1.10 | .90 | 2.20 | .55 | 1.85 | 1.10 | .20 | .55 | .70 |
| 18 | .75 | .90 | 1.25 | 1.00 | 7.30 | 1.80 | .50 | 1.30 | 1.10 | .20 | .50 | .70 |
| 19 | .65 | 1.20 | 1.40 | 1.00 | 3.10 | 3.70 | .40 | 1.00 | 1.00 | .20 | .50 | .60 |
| 20 | .70 | 2.65 | 1.20 | 1.00 | 1.80 | 1.50 | .45 | 4.00 | .50 | .25 | .50 | .60 |
| 21 | 1.15 | 1.75 | 1.20 | .90 | 1.40 | 1.30 | .50 | 5.90 | .50 | .30 | .50 | .60 |
| 22 | 1.05 | 5.50 | 1.30 | .90 | 1.25 | 2.20 | 2.70 | 2.45 | .50 | .30 | .45 | .60 |
| 23 | 2.05 | 4.05 | 1.25 | .85 | 1.10 | 1.25 | 1.90 | 1.65 | .50 | .30 | .50 | .50 |
| 24 | 1.50 | 2.80 | 10.30 | .80 | 1.00 | .90 | 2.70 | 1.50 | .50 | .30 | .45 | .85 |
| 25 | 1.25 | 2.05 | 3.90 | .90 | 1.05 | .80 | 1.50 | 1.35 | .40 | .30 | .45 | .95 |
| 26 | 1.10 | 1.65 | 2.50 | 1.00 | 1.00 | .70 | 1.00 | 1.20 | .40 | .30 | .40 | 1.00 |
| 27 | 1.00 | 1.60 | 2.50 | 2.00 | .90 | .60 | 1.20 | 1.10 | .40 | .30 | .40 | 1.30 |
| 28 | .75 | 1.50 | 2.70 | 1.90 | .90 | .90 | 1.40 | 1.00 | .40 | .30 | .40 | 2.65 |
| 29 | .35 | 1.50 | 2.10 | 1.35 | .80 | 3.90 | 3.00 | .90 | .40 | .30 | .45 | 1.95 |
| 30 | 1.15 | ------- | 1.80 | 1.20 | .80 | 2.40 | 2.30 | .90 | .40 | .30 | .50 | 1.40 |
| 31 | 1.05 | ------- | 1.60 | ------- | .80 | ------- | 3.50 | .80 | ------- | .30 | ------ | 1.10 |
| **1905.** | | | | | | | | | | | | |
| 1 | 1.05 | 2.0 | 2.5 | 1.3 | 1.3 | 2.5 | 1.0 | 1.6 | 1.5 | 0.9 | 0.95 | 0.7 |
| 2 | 1.0 | 1.2 | 2.45 | 1.1 | 1.25 | 2.15 | 1.2 | 1.25 | 1.4 | .85 | .95 | .8 |
| 3 | 1.0 | .7 | 2.3 | 1.1 | 1.25 | 1.9 | 1.7 | 2.0 | 3.1 | .9 | .95 | 2.0 |
| 4 | 1.0 | .8 | 2.1 | 1.1 | 1.2 | 1.5 | 1.4 | 3.1 | 2.75 | .95 | .9 | 1.3 |
| 5 | .6 | .7 | 2.0 | 1.8 | 2.9 | 1.4 | 4.5 | 3.0 | 2.3 | .95 | .9 | 1.2 |
| 6 | .75 | .9 | 1.9 | 6.8 | 8.0 | 1.4 | 5.0 | 1.9 | 1.5 | .9 | .9 | 1.15 |
| 7 | 7.8 | 1.4 | 1.8 | 3.6 | 5.6 | 1.3 | 3.0 | 1.55 | 1.6 | .8 | .9 | 1.1 |
| 8 | 2.8 | 1.25 | 1.6 | 2.3 | 4.8 | 1.2 | 1.5 | 4.8 | 1.6 | .75 | .9 | 1.0 |
| 9 | 1.5 | 1.0 | 1.5 | 2.0 | 2.75 | 1.15 | 1.65 | 2.5 | 1.4 | .75 | .85 | 1.5 |
| 10 | 1.6 | 1.45 | 2.1 | 1.65 | 2.2 | 1.1 | 3.0 | 4.8 | 1.35 | .8 | .85 | 6.0 |
| 11 | 1.4 | 1.65 | 3.9 | 1.4 | 2.5 | 1.1 | 2.9 | 5.1 | 1.4 | 1.15 | .85 | 2.9 |
| 12 | 3.15 | 3.65 | 3.3 | 2.25 | 3.8 | 1.1 | 2.8 | 2.6 | 1.3 | 3.4 | .85 | 1.8 |
| 13 | 5.2 | 4.6 | 2.7 | 3.7 | 5.1 | 1.2 | 7.5 | 4.2 | 1.2 | 1.5 | .8 | 1.7 |
| 14 | 2.95 | 3.6 | 2.3 | 3.4 | 4.1 | 1.1 | 3.8 | 2.4 | 1.15 | 1.25 | .8 | 1.5 |
| 15 | 1.5 | 2.2 | 1.9 | 3.2 | 2.75 | 1.05 | 3.0 | 2.6 | 1.1 | 1.15 | .8 | 1.75 |
| 16 | 1.3 | 1.7 | 1.7 | 2.8 | 6.9 | 1.0 | 2.5 | 3.2 | 1.0 | 1.0 | .75 | 2.0 |
| 17 | 1.2 | 1.6 | 1.6 | 2.5 | 4.0 | 1.1 | 2.05 | 3.9 | 1.2 | 1.0 | .75 | 2.1 |
| 18 | 1.3 | 1.4 | 1.6 | 2.2 | 2.9 | 1.6 | 1.8 | 2.8 | 1.15 | 1.05 | .75 | 2.0 |
| 19 | 1.3 | 1.4 | 1.5 | 2.0 | 2.1 | 1.3 | 2.45 | 2.35 | 1.15 | 1.0 | .75 | 1.8 |
| 20 | 1.3 | 8.6 | 1.45 | 1.9 | 2.0 | 1.5 | 1.8 | 2.0 | 1.15 | .95 | .75 | 1.6 |
| 21 | 1.25 | 8.1 | 1.4 | 1.8 | 1.75 | 1.35 | 1.55 | 2.0 | 1.1 | .95 | .7 | 15.1 |
| 22 | 1.15 | 6.6 | 1.5 | 1.7 | 1.7 | 1.25 | 2.7 | 1.9 | 1.1 | .9 | .8 | 5.4 |
| 23 | 1.0 | 5.4 | 1.45 | 1.6 | 1.55 | 1.0 | 2.25 | 1.8 | 1.05 | .95 | .75 | 3.4 |
| 24 | .95 | 4.2 | 1.3 | 1.5 | 1.6 | 1.9 | 1.9 | 5.55 | 1.0 | .95 | .75 | 3.5 |
| 25 | .85 | 3.8 | 1.5 | 1.45 | 1.2 | 1.75 | 2.85 | 5.9 | .95 | 1.0 | .8 | 3.1 |
| 26 | 1.0 | 3.6 | 1.4 | 1.4 | 1.05 | 1.4 | 1.6 | 5.6 | .95 | 1.1 | .8 | 2.5 |
| 27 | 1.85 | 3.6 | 2.3 | 2.85 | 5.5 | 1.15 | 1.4 | 3.2 | .9 | 1.05 | .75 | 2.1 |
| 28 | 1.3 | 2.9 | 1.4 | 2.0 | 3.7 | 1.05 | 2.0 | 2.0 | .85 | 1.0 | .75 | 2.0 |
| 29 | 1.4 | ------- | 1.4 | 1.85 | 5.8 | .95 | 5.4 | 1.8 | .8 | 1.0 | .7 | 6.7 |
| 30 | 1.6 | ------- | 1.4 | 1.5 | 5.2 | 1.0 | 3.5 | 1.65 | .85 | 1.0 | .7 | 3.4 |
| 31 | 1.8 | ------- | 1.4 | ------- | 3.0 | ------- | 2.15 | 1.55 | ------- | 1.0 | ------ | 2.6 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER AT MADISON, N. C., FOR 1906-1907.

| 1906. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.4 | 3.0 | 2.25 | 3.4 | 1.75 | 1.3 | 1.7 | 3.3 | 3.9 | 2.9 | 2.35 | 2.05 |
| 2 | 2.15 | 2.6 | 2.0 | 2.75 | 1.85 | 1.2 | 1.65 | 4.0 | 3.1 | 2.7 | 2.3 | 2.0 |
| 3 | 2.0 | 2.25 | 1.7 | 2.4 | 1.95 | 1.2 | 2.0 | 4.3 | 2.9 | 2.5 | 2.2 | 2.0 |
| 4 | 17.9 | 2.0 | 5.4 | 2.4 | 2.0 | 1.15 | 1.85 | 2.6 | 3.1 | 5.9 | 2.15 | 1.95 |
| 5 | 5.4 | 2.1 | 3.1 | 2.3 | 2.05 | 1.1 | 1.7 | 2.15 | 2.85 | 3.6 | 2.15 | 1.95 |
| 6 | 3.7 | 2.3 | 2.65 | 2.25 | 1.7 | 6.1 | 1.6 | 2.15 | 2.5 | 2.9 | 2.15 | 1.9 |
| 7 | 2.9 | 2.2 | 2.3 | 2.25 | 2.4 | 1.9 | 1.8 | 1.9 | 2.3 | 3.2 | 2.1 | 1.9 |
| 8 | 2.75 | 2.1 | 2.1 | 2.05 | 2.15 | 2.0 | 1.5 | 1.9 | 2.2 | 2.9 | 2.1 | 1.85 |
| 9 | 2.55 | 2.0 | 2.1 | 2.1 | 1.85 | 1.9 | 4.8 | 1.8 | 2.1 | 2.45 | 2.1 | 1.8 |
| 10 | 2.35 | 2.2 | 2.0 | 2.7 | 1.5 | 1.8 | 2.9 | 1.8 | 2.05 | 3.1 | 2.05 | 1.8 |
| 11 | 2.2 | 2.1 | 1.8 | 2.45 | 1.5 | 2.5 | 1.8 | 1.8 | 1.9 | 2.6 | 2.05 | 2.6 |
| 12 | 2.25 | 2.0 | 1.75 | 2.1 | 1.5 | 1.85 | 1.45 | 1.6 | 1.8 | 2.1 | 2.15 | 2.2 |
| 13 | 4.2 | 2.0 | 1.75 | 2.05 | 1.5 | 2.0 | 1.5 | 5.2 | 5.4 | 2.0 | 2.1 | 1.9 |
| 14 | 4.8 | 2.0 | 1.7 | 2.0 | 1.45 | 3.6 | 1.5 | 3.1 | 3.5 | 2.0 | 2.1 | 1.9 |
| 15 | 3.4 | 1.9 | 2.15 | 3.1 | 1.45 | 3.1 | 1.4 | 5.0 | 2.4 | 1.95 | 2.05 | 1.9 |
| 16 | 3.0 | 1.8 | 5.3 | 2.8 | 1.4 | 3.5 | 5.0 | 14.9 | 2.1 | 1.9 | 2.15 | 1.85 |
| 17 | 2.75 | 1.7 | 3.2 | 2.45 | 1.3 | 4.0 | 2.4 | 15.5 | 2.1 | 2.0 | 2.1 | 1.85 |
| 18 | 2.4 | 1.8 | 2.6 | 2.25 | 1.3 | 3.2 | 4.5 | 14.3 | 2.1 | 2.3 | 2.0 | 4.4 |
| 19 | 2.3 | 1.75 | 2.15 | 2.15 | 1.3 | 2.5 | 2.3 | 5.9 | 2.0 | 9.3 | 2.5 | 3.9 |
| 20 | 2.2 | 1.7 | 7.4 | 2.1 | 1.25 | 3.9 | 2.3 | 7.6 | 3.5 | 7.5 | 4.6 | 4.2 |
| 21 | 2.15 | 1.65 | 4.0 | 2.05 | 1.25 | 2.5 | 6.3 | 4.2 | 2.65 | 5.0 | 3.2 | 4.6 |
| 22 | 2.0 | 3.2 | 2.8 | 1.95 | 1.25 | 3.3 | 6.5 | 3.2 | 2.4 | 4.2 | 2.8 | 2.9 |
| 23 | 10.1 | 2.8 | 2.6 | 1.95 | 1.25 | 2.35 | 6.3 | 2.9 | 3.0 | 3.6 | 2.5 | 2.6 |
| 24 | 6.6 | 2.25 | 2.45 | 1.9 | 1.2 | 1.8 | 2.4 | 2.7 | 2.85 | 3.2 | 2.3 | 2.2 |
| 25 | 4.4 | 2.0 | 2.15 | 1.8 | 1.2 | 3.3 | 4.4 | 2.5 | 2.75 | 3.0 | 2.2 | 2.0 |
| 26 | 3.2 | 1.9 | 2.7 | 1.75 | 1.15 | 6.2 | 2.1 | 2.65 | 2.4 | 2.9 | 2.2 | 1.85 |
| 27 | 6.1 | 1.75 | 2.6 | 1.7 | 2.2 | 2.7 | 1.8 | 3.2 | 2.2 | 2.8 | 2.15 | 1.8 |
| 28 | 6.4 | 2.65 | 2.5 | 1.7 | 2.0 | 2.0 | 4.2 | 6.1 | 2.0 | 2.7 | 2.1 | 2.0 |
| 29 | 4.6 | ------- | 2.55 | 1.65 | 1.6 | 1.9 | 2.4 | 8.6 | 2.0 | 2.5 | 2.1 | 2.4 |
| 30 | 3.9 | ------- | 2.9 | 1.7 | 1.5 | 1.8 | 7.7 | 7.5 | 2.1 | 2.5 | 2.05 | 2.25 |
| 31 | 3.4 | ------- | 5.0 | ------- | 1.4 | ------- | 6.8 | 5.8 | ------- | 2.4 | ------ | 4.2 |
| 1907. | | | | | | | | | | | | |
| 1 | 7.80 | 1.80 | 3.20 | 2.80 | 2.20 | 2.90 | 1.95 | 1.50 | 0.90 | 1.65 | 1.10 | 1.75 |
| 2 | 4.10 | 1.75 | 3.10 | 2.20 | 2.30 | 9.10 | 1.90 | 1.65 | .80 | 1.50 | 1.15 | 1.65 |
| 3 | 3.40 | 1.85 | 3.70 | 1.85 | 2.30 | 4.40 | 2.00 | 1.50 | .90 | 1.40 | 2.70 | 1.60 |
| 4 | 3.00 | 1.80 | 3.20 | 1.80 | 2.50 | 2.90 | 2.00 | 1.40 | 1.00 | 1.30 | 1.60 | 1.50 |
| 5 | 2.85 | 1.70 | 2.50 | 1.70 | 2.50 | 2.40 | 1.90 | 1.30 | 1.20 | 1.25 | 1.30 | 1.50 |
| 6 | 2.60 | 1.60 | 2.30 | 1.95 | 2.40 | 2.20 | 1.85 | 1.20 | 2.10 | 1.25 | 1.20 | 1.45 |
| 7 | 2.50 | 1.40 | 2.20 | 9.00 | 2.30 | 2.05 | 3.10 | 1.25 | 1.30 | 1.20 | 1.15 | 1.50 |
| 8 | 2.40 | 1.60 | 2.20 | 3.20 | 2.20 | 2.30 | 2.65 | 1.30 | 1.05 | 1.20 | 1.20 | 1.55 |
| 9 | 2.40 | 1.75 | 2.15 | 2.95 | 2.20 | 2.20 | 1.50 | 1.40 | 1.00 | 1.30 | 1.15 | 1.50 |
| 10 | 2.30 | 1.85 | 2.20 | 2.60 | 2.60 | 2.00 | 1.50 | 1.50 | .90 | 1.25 | 1.30 | 5.60 |
| 11 | 2.20 | 1.80 | 3.20 | 2.40 | 2.10 | 2.90 | 1.50 | 1.60 | 3.10 | 1.20 | 1.35 | 3.70 |
| 12 | 2.15 | 1.75 | 2.80 | 2.30 | 1.90 | 2.30 | 1.40 | 1.60 | 2.20 | 1.15 | 1.40 | 2.40 |
| 13 | 2.10 | 1.75 | 2.50 | 2.20 | 1.80 | 2.65 | 2.00 | 1.40 | 1.70 | 1.10 | 1.35 | 2.15 |
| 14 | 2.10 | 1.65 | 2.20 | 2.00 | 1.80 | 7.90 | 2.15 | 2.00 | 1.45 | 1.10 | 1.30 | 4.20 |
| 15 | 2.10 | 1.70 | 3.40 | 2.00 | 1.75 | 3.60 | 7.30 | 1.50 | 1.30 | 1.10 | 1.25 | 6.30 |
| 16 | 2.05 | 1.65 | 2.70 | 1.95 | 2.10 | 2.70 | 2.80 | 1.30 | 1.15 | 1.10 | 1.20 | 4.20 |
| 17 | 2.00 | 1.60 | 2.45 | 1.95 | 1.90 | 2.40 | 2.00 | 1.50 | 1.10 | 1.10 | 1.20 | 2.80 |
| 18 | 1.95 | 1.60 | 2.30 | 1.90 | 1.75 | 2.20 | 2.70 | 3.50 | 1.05 | 1.05 | 1.20 | 2.40 |
| 19 | 1.90 | 1.60 | 2.20 | 1.90 | 1.65 | 2.00 | 2.20 | 1.90 | 1.00 | 1.00 | 1.70 | 2.30 |
| 20 | 1.90 | 1.65 | 2.15 | 1.90 | 1.65 | 1.90 | 1.90 | 1.50 | 1.00 | .95 | 1.40 | 2.25 |
| 21 | 1.85 | 1.80 | 1.90 | 1.80 | 1.60 | 2.20 | 1.80 | 1.30 | .95 | .90 | 1.60 | 2.15 |
| 22 | 1.80 | 1.60 | 1.90 | 1.80 | 1.55 | 2.00 | 1.70 | 1.30 | .90 | .90 | 1.50 | 2.00 |
| 23 | 1.75 | 1.50 | 1.80 | 5.80 | 1.50 | 3.10 | 1.60 | 1.40 | 5.20 | .90 | 5.20 | 12.00 |
| 24 | 1.70 | 1.50 | 1.80 | 5.60 | 1.80 | 4.40 | 1.50 | 1.30 | 6.00 | 1.00 | 10.30 | 8.40 |
| 25 | 1.65 | 1.60 | 1.75 | 3.10 | 1.60 | 2.30 | 1.40 | 1.30 | 2.50 | .95 | 4.20 | 3.60 |
| 26 | 1.65 | 4.40 | 1.70 | 2.80 | 1.70 | 2.00 | 1.40 | 1.10 | 2.40 | .90 | 3.60 | 3.10 |
| 27 | 1.70 | 2.80 | 1.75 | 2.50 | 1.60 | 1.90 | 1.50 | 1.10 | 2.30 | 1.00 | 2.80 | 2.80 |
| 28 | 1.50 | 2.70 | 1.70 | 3.50 | 1.50 | 1.70 | 1.40 | 1.00 | 2.15 | 1.10 | 2.40 | 2.50 |
| 29 | 1.60 | ------- | 1.70 | 2.90 | 1.40 | 2.90 | 1.40 | .90 | 1.90 | 1.10 | 1.90 | 2.15 |
| 30 | 2.00 | ------- | 1.65 | 2.50 | 1.40 | 2.20 | 1.80 | .90 | 1.80 | 1.05 | 1.80 | 6.00 |
| 31 | 1.90 | ------- | 1.65 | ------- | 1.40 | ------- | 1.50 | .90 | ------- | 1.05 | ------ | 5.20 |

NOTE.—Discharge probably unaffected by ice.

MEAN DAILY GAGE HEIGHT, IN FEET, OF DAN RIVER, AT SOUTHERN RAILWAY BRIDGE, NEAR MADISON, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.4 | 2.1 | 3.2 | 2.35 | 3.8 | 1.7 | 1.55 | 1.5 | 1.9 | 1.25 |
| 2 | 3.1 | 2.0 | 3.0 | 4.6 | 2.9 | 1.6 | 1.5 | 1.25 | 2.8 | 1.15 |
| 3 | 2.7 | 1.6 | 2.9 | 3.2 | 2.4 | 1.5 | 3.3 | 1.2 | 2.75 | 1.15 |
| 4 | 2.5 | 2.0 | 2.75 | 2.8 | 2.2 | 16.4 | 3.5 | 1.1 | 2.3 | 1.1 |
| 5 | 5.9 | 2.1 | 2.5 | 2.55 | 2.1 | 5.7 | 3.1 | 1.1 | 1.95 | 1.1 |
| 6 | 3.4 | 2.1 | 5.2 | 2.5 | 2.1 | 3.8 | 3.0 | 2.9 | 5.7 | 1.0 |
| 7 | 14.4 | 2.7 | 3.9 | 2.45 | 5.0 | 3.2 | 2.5 | 2.4 | 3.3 | .8 |
| 8 | 12.9 | 2.45 | 3.2 | 2.4 | 3.4 | 2.7 | 2.35 | 1.9 | 2.4 | 1.0 |
| 9 | 4.8 | 2.25 | 3.0 | 2.3 | 2.65 | 2.3 | 2.25 | 1.75 | 2.05 | 1.5 |
| 10 | 3.6 | 2.1 | 2.9 | 2.3 | 2.4 | 2.25 | 2.0 | 1.6 | 1.8 | 6.7 |
| 11 | 2.9 | 7.4 | 2.7 | 2.2 | 2.15 | 2.4 | 1.7 | 1.5 | 1.7 | 3.8 |
| 12 | 14.9 | 7.2 | 3.0 | 2.15 | 2.1 | 2.6 | 1.6 | 1.4 | 1.6 | 2.7 |
| 13 | 5.7 | 8.1 | 2.8 | 2.1 | 2.1 | 2.4 | 1.55 | 1.3 | 1.5 | 2.1 |
| 14 | 4.1 | 9.9 | 2.7 | 2.1 | 2.0 | 2.25 | 1.65 | 1.25 | 1.4 | 1.85 |
| 15 | 3.5 | 12.8 | 2.65 | 2.0 | 2.0 | 3.2 | 1.45 | 1.2 | 1.35 | 1.75 |
| 16 | 3.2 | 7.3 | 2.5 | 3.9 | 2.05 | 3.9 | 1.4 | 1.2 | 1.3 | 1.65 |
| 17 | 2.9 | 4.5 | 2.45 | 3.2 | 2.0 | 2.8 | 1.25 | 1.2 | 1.3 | 1.6 |
| 18 | 2.7 | 4.3 | 2.5 | 2.6 | 1.9 | 2.5 | 1.2 | 1.2 | 1.3 | 1.5 |
| 19 | 2.5 | 5.4 | 2.5 | 2.3 | 1.9 | 2.3 | 1.6 | 1.25 | 1.25 | 1.5 |
| 20 | 2.4 | 4.1 | 2.6 | 2.2 | 2.15 | 2.1 | 1.5 | 1.25 | 1.25 | 1.5 |
| 21 | 2.35 | 3.9 | 2.65 | 2.1 | 2.4 | 3.2 | 1.4 | 1.2 | 1.2 | 1.45 |
| 22 | 2.35 | 3.6 | 3.6 | 2.0 | 2.45 | 2.6 | 3.80 | 2.1 | 1.2 | 1.45 |
| 23 | 2.2 | 3.1 | 3.9 | 1.9 | 2.45 | 2.2 | 2.4 | 2.9 | 1.2 | 1.5 |
| 24 | 2.0 | 2.9 | 5.8 | 1.9 | 2.7 | 2.0 | 2.0 | 3.4 | 1.15 | 4.0 |
| 25 | 1.8 | 2.75 | 4.2 | 2.25 | 2.35 | 1.9 | 1.75 | 11.2 | 1.15 | 1.55 |
| 26 | 2.15 | 4.1 | 3.4 | 2.15 | 1.95 | 1.8 | 1.4 | 20.3 | 1.1 | 2.4 |
| 27 | 2.4 | 3.4 | 3.0 | 2.1 | 1.8 | 1.75 | 1.25 | 6.4 | 1.1 | 2.1 |
| 28 | 2.3 | 3.3 | 2.8 | 2.0 | 1.75 | 1.75 | 2.6 | 3.2 | 2.2 | 1.95 |
| 29 | 2.1 | 3.0 | 2.7 | 1.9 | 1.7 | 1.65 | 2.0 | 2.8 | 1.75 | 4.7 |
| 30 | 2.0 | ------- | 2.6 | 5.5 | 1.9 | 1.6 | 1.75 | 2.35 | 1.4 | 5.5 |
| 31 | 2.0 | ------- | 2.5 | ------- | 1.8 | ------- | 1.6 | ------- | ------- | 3.4 |

RATING TABLE FOR DAN RIVER AT MADISON, N. C., FROM MAY 7, 1903, TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| .20 | 180 | .60 | 278 | 1.00 | 386 | 1.80 | 642 |
| .25 | 192 | .65 | 291 | 1.10 | 416 | 1.90 | 676 |
| .30 | 204 | .70 | 304 | 1.20 | 446 | 2.00 | 710 |
| .35 | 216 | .75 | 317 | 1.30 | 476 | 2.10 | 744 |
| .40 | 228 | .80 | 330 | 1.40 | 508 | 2.20 | 778 |
| .45 | 240 | .85 | 344 | 1.50 | 540 | 2.30 | 813 |
| .50 | 252 | .90 | 358 | 1.60 | 574 | 2.40 | 849 |
| .55 | 265 | .95 | 372 | 1.70 | 608 | 2.50 | 885 |

The above table is applicable only for open-channel conditions. It is based upon 10 discharge measurements made during 1904 and 4 measurements made during 1903. It is well defined between gage heights 0.50 foot and 2.50 feet.

Discharge estimated above 2.50 gage height.

STATION RATING TABLE FOR DAN RIVER AT MADISON, N. C., FROM JANUARY 1 TO DECEMBER 31, 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| .20 | 180 | .80 | 330 | 1.40 | 508 | 2.00 | 710 |
| .30 | 204 | .90 | 358 | 1.50 | 540 | 2.10 | 744 |
| .40 | 228 | 1.00 | 386 | 1.60 | 574 | 2.20 | 778 |
| .50 | 252 | 1.10 | 416 | 1.70 | 608 | 2.30 | 813 |
| .60 | 278 | 1.20 | 446 | 1.80 | 642 | 2.40 | 849 |
| .70 | 304 | 1.30 | 476 | 1.90 | 676 | 2.50 | 885 |

NOTE.—The above table is applicable only for open-channel conditions. It is based on 17 discharge measurements made during 1903–1905. It is well defined between gage heights 0.5 foot and 2.5 feet. Above 2.5 feet the discharge is only approximate.

STATION RATING TABLE FOR DAN RIVER AT MADISON, N. C., FOR LOW WATER PERIOD, 1906 AND 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| .70 | 247 | .60 | 495 | .50 | 805 | .40 | 1,154 |
| .80 | 272 | .70 | 526 | .60 | 842 | .50 | 1,195 |
| .90 | 298 | .80 | 558 | .70 | 879 | .60 | 1,237 |
| 1.00 | 325 | .90 | 591 | .80 | 917 | .70 | 1,279 |
| .10 | 352 | 2.00 | 625 | .90 | 955 | .80 | 1,322 |
| .20 | 380 | .10 | 660 | 3.00 | 994 | .90 | 1,366 |
| .30 | 408 | .20 | 696 | .10 | 1,033 | 4.00 | 1,410 |
| .40 | 436 | .30 | 732 | .20 | 1,073 | ---- | ----- |
| .50 | 465 | .40 | 768 | .30 | 1,113 | ---- | ----- |

The above table is applicable only for open-channel conditions. It is based upon 4 discharge measurements made during 1905–1907 and the form of the 1905 curve. It is not well defined.

ESTIMATED MONTHLY DISCHARGE OF DAN RIVER AT MADISON, N. C., FOR 1903–4.

| Month. | Discharge in Second-feet. | | |
|---|---|---|---|
| | Maximum. | Minimum. | Mean. |
| 1903. | | | |
| May 8-31 | 2,465 | 574 | 992 |
| June | 3,300 | 710 | 1,199 |
| July | 2,735 | 416 | 742 |
| August | 4,250 | 401 | 910 |
| September | 2,495 | 358 | 541 |
| October | 813 | 330 | 398 |
| November | 1,020 | 317 | 418 |
| December | 795 | 265 | 388 |
| 1904. | | | |
| January | 727 | 216 | 376 |
| February | 2,375 | 265 | 659 |
| March | 5,255 | 416 | 808 |
| April | 710 | 330 | 463 |
| May | 3,455 | 330 | 550 |
| June | 1,575 | 278 | 653 |
| July | 1,335 | 228 | 480 |
| August | 2,615 | 330 | 865 |
| September | 659 | 228 | 349 |
| October | 216 | 180 | 195 |
| November | 330 | 204 | 242 |
| December | 953 | 240 | 386 |
| 1905. | | | |
| January | 3,880 | 278 | 686 |
| February | 4,460 | 304 | 1,195 |
| March | 1,525 | 476 | 684 |
| April | 3,170 | 416 | 822 |
| May | 4,020 | 401 | 1,306 |
| June | 885 | 372 | 496 |
| July | 3,660 | 386 | 1,019 |
| August | 2,615 | 461 | 1,134 |
| September | 1,155 | 330 | 495 |
| October | 1,290 | 317 | 412 |
| November | 372 | 304 | 334 |
| December | 11,000 | 304 | 1,237 |

MONTHLY DISCHARGE OF DAN RIVER AT MADISON, N. C., FOR 1906-1907.
[Drainage area, ------square miles.]

| Month. | Discharge in Second-feet. | | |
|---|---|---|---|
| | Minimum 7 Days. | Minimum Day. | Mean for Month. |
| 1906. | | | |
| January | 770 | 625 | --- |
| February | 544 | 510 | 675 |
| March | 588 | 526 | --- |
| April | 540 | 510 | 702 |
| May | 386 | 366 | 496 |
| June | 627 | 352 | --- |
| July | 536 | 436 | --- |
| August | 576 | 495 | --- |
| September | 669 | 558 | --- |
| October | 638 | 591 | --- |
| November | 657 | 625 | --- |
| December | 584 | 558 | --- |
| The period | 386 | 352 | --- |
| 1907. | | | |
| January | 511 | 465 | --- |
| February | 498 | 436 | --- |
| March | 526 | 510 | 747 |
| April | 586 | 526 | --- |
| May | 470 | 436 | 594 |
| June | 697 | 526 | --- |
| July | 462 | 436 | --- |
| August | 333 | 298 | 452 |
| September | 331 | 272 | --- |
| October | 306 | 298 | 361 |
| November | 390 | 352 | --- |
| December | 485 | 450 | --- |
| The period | 298 | 272 | --- |

## MAYO RIVER AT MADISON, N. C.

Mayo River rises in the eastern part of Patrick County, Va., flows first southeast, then south, and unites with the Dan at Madison, N. C.

The station was established as a bench-mark station April 16, 1904. It is located about one-half mile from Madison, at the highway bridge on the road to Mayodan, N. C., and about 1,000 feet above the junction of Mayo and Dan rivers.

The channel is straight for about 600 feet above and 1,000 feet below the station. The current is swift. Both banks are high, wooded, and not liable to overflow. The bed of the stream is composed of sand, with some rocks along the left bank. There is but one channel. At low water all water passes under the left span; at higher stages under both spans. Two cotton mills about 3 miles upstream will control the flow at all times, and freshets in Dan River will also cause backwater at the station.

Discharge measurements are made from the downstream side of the two-span bridge resting on three stone piers.

The bench mark is the upper edge of a small tie plate on the upstream side of the bottom of the third strut from the left bank on the upstream side of the bridge. Its elevation is 28.00 feet above gage datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF MAYO RIVER AT MADISON, N. C., IN 1904 AND 1905.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 16 | B. S. Drane | 59 | 249 | 1.13 | 1.82 | 281 |
| June 7 | ----do | 60 | 270 | .90 | 2.09 | 244 |
| Sept. 27 | ----do | 61 | 250 | .81 | 1.24 | 202 |
| 1905. | | | | | | |
| Apr. 21 | B. S. Drane | 63 | 271 | 1.16 | 2.14 | 314 |
| Aug. 21 | ----do | 84 | 391 | 0.99 | 2.43 | 388 |

## RIVER PROFILE SURVEYS IN THE ROANOKE RIVER DRAINAGE BASIN.

### SURVEY OF ROANOKE RIVER.

This survey was made during 1905 by the United States Geological Survey in co-operation with the Geological Survey of Virginia.

The work was done by Mr. A. H. Horton, under the direction of the Water Resources Branch.

This survey extends from Weldon, N. C., to Roanoke, Va., but only the portion in North Carolina is here given.

The following list shows the elevation above sea-level, and distances from Weldon, N. C., of the various points noted.

ELEVATIONS ON ROANOKE RIVER, FROM WELDON, N. C., TO THE VIRGINIA STATE LINE.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 1.2 | Railroad bridge canal water survey | 58 |
| 2.3 | Canal, water survey | 60 |
| 6.1 | Lock 4 foot of canal water surface | 61 |
| 6.1 | Lock 4 head of canal water surface | 67 |
| 6.1 | Lock 3 foot of canal water surface | 67 |
| 6.1 | Lock 3 head of canal water surface | 73 |
| 6.2 | Lock 2 foot of canal water surface | 73 |
| 6.2 | Lock 2 head of canal water surface | 80 |
| 6.2 | Lock 1 foot of canal water surface | 80 |
| 6.2 | Lock 1 head of canal water surface | 91 |
| 9.2 | Canal head of water surface | 96 |
| 9.7 | Water surface | 98 |
| 12.4 | Deep Creek, mouth of water surface | 99 |
| 13.3 | Eatons Falls, foot water surface | 101 |
| 13.9 | Eatons Falls, head water surface | 113 |
| 14.5 | Wilkins Ferry, water surface | 113 |
| 16.4 | Allens Creek, mouth water surface | 115 |
| 17.0 | Water surface | 121 |
| 18.0 | Water surface | 127 |
| 18.6 | Sturgeonhole Falls, head of, water surface | 135 |
| 20.1 | Water surface (foot of shoals) | 139 |
| 20.3 | Water surface (head of shoals) | 144 |
| 20.4 | Pittards Creek, mouth of, water surface | 144 |
| 20.8 | Water surface | 145 |
| 21.4 | Water surface | 150 |
| 21.8 | Stonehouse Creek, mouth of, water surface | 151 |
| 24.4 | Eatons Ferry, water surface | 154 |
| 26.5 | Hub Quarter Creek, mouth of, water surface | 155 |
| 29.0 | Water surface | 156 |
| 30.1 | Poplar Creek, mouth of, water surface | 157 |
| 32.0 | State Line, water surface | 160 |
| 33.7 | Great Creek, mouth of, water surface | 164 |

## TAR RIVER DRAINAGE BASIN.

### DESCRIPTION OF BASIN.

This river takes its rise in Person and Granville counties, North Carolina, flows in a southeasterly direction through Franklin, Nash, Edgecombe, and Pitt counties, and empties into the Pamlico River, in Beaufort, near the town of Washington, its length, in a straight line, being about 120 miles, and by the river perhaps 175. The principal towns on the stream are Washington, Greenville, Tarboro, Rocky Mount, and Louisburg. Tarboro, 53 miles from Pamlico River, is the head of navigation, and it is hoped to secure ultimately a channel 3 feet in depth at all stages of the water up to this point, but at present this depth exists only during nine months of the year. The obstructions to navigation consist of stumps, snags, fallen trees, and artificial obstructions placed there during the war.

The river drains an area of about 3,000 square miles, the greater part of which lies north of the stream, from which side the principal tributaries—Swift and Fishing creeks—enter, draining, respectively, 350 and 760 square miles. The stream crosses the fall line at Rocky Mount, below which point there is no water-power. The general character of the drainage basin resembles that of the Roanoke. The leading productions are tobacco, corn, and cotton, most of the cotton being raised in the eastern part, and most of the tobacco in the western. There are no lakes in the basin. The bed of the stream above the fall line is rock in places, but generally sand, clay, gravel or mud, the declivity of the stream being quite uniform. Above Rocky Mount the bottoms are narrower than on the Roanoke, and the banks are generally high enough to confine the river, except in very heavy freshets. Below Rocky Mount the banks are often overflowed, the river rising sometimes 25 feet at Tarboro.

### MEASUREMENTS OF STREAM FLOW.

#### TAR RIVER AT TARBORO, N. C.

This station is in the town of Tarboro and is located on the bridge of the Atlantic Coast Line, which crosses the river here. This gage was established July 25, 1896.

Measurements of discharge are made at the station and occasionally at the highway bridge crossing the stream about 200 yards above, as the lower section is sometimes obstructed by rafts of logs.

DISCHARGE MEASUREMENTS OF TAR RIVER AT TARBORO, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1896. | | | | | |
| July 25 | E. W. Myers | 1,061 | 1.85 | 4.35 | 1,963 |
| Sept. 5 | do | 225 | 1.67 | 0.43 | 376 |
| Sept. 17 | A. P. Davis | 1,081 | 2.12 | 4.51 | 2,294 |
| Dec. 17 | E. W. Myers | 3,676 | 2.35 | 13.20 | 8,651 |
| 1897. | | | | | |
| Jan. 23 | E. W. Myers | 1,822 | 1.98 | 6.65 | 3,520 |
| Feb. 26 | do | 3,489 | 2.32 | 13.53 | 8,106 |
| Mar. 15 | do | 5,263 | 2.46 | 18.13 | 12,993 |
| May 17 | do | 1,629 | 1.87 | 6.30 | 3,058 |
| July 29 | do | 744 | 1.44 | 2.25 | 1,079 |
| Oct. 2 | do | 238 | 0.80 | —0.65 | 192 |
| 1898. | | | | | |
| Jan. 13 | E. W. Myers | 877 | 1.51 | 2.30 | 1,323 |
| 1899. | | | | | |
| Feb. 5 | E. W. Myers | ----- | ----- | 9.10 | 5,165 |
| May 24 | do | ----- | ----- | 2.60 | 1,125 |
| June 7 | do | ----- | ----- | 2.00 | 798 |
| Oct. 16 | do | ----- | ----- | 2.95 | 1,150 |
| Nov. 28 | do | ----- | ----- | 2.20 | 875 |
| 1900. | | | | | |
| Apr. 11 | E. W. Myers | ----- | ----- | 4.48 | 1,915 |
| Apr. 23 | do | ----- | ----- | 14.90 | 10,237 |
| May 18 | do | ----- | ----- | 2.18 | 1,003 |
| June 30 | do | ----- | ----- | 2.30 | 1,030 |
| Aug. 9 | do | ----- | ----- | 0.40 | 371 |
| Nov. 2 | do | ----- | ----- | —0.30 | 87 |
| Nov. 21 | do | ----- | ----- | 0.50 | 412 |

DAILY GAGE HEIGHT, IN FEET, OF TAR RIVER AT TARBORO, N. C., FOR 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------- | 1.30 | 1.00 | 2.82 | 0.89 | 3.87 | 17 | ------- | 1.25 | 4.50 | 1.98 | 2.45 | 12.73 |
| 2 | ------- | 1.00 | .60 | 3.55 | .96 | 4.34 | 18 | ------- | 1.28 | 4.35 | 1.50 | 1.95 | 13.82 |
| 3 | ------- | .90 | .45 | 4.20 | 1.20 | 4.85 | 19 | ------- | 1.00 | 4.20 | 1.00 | 1.63 | 14.50 |
| 4 | ------- | 1.20 | .80 | 2.95 | 1.05 | 4.90 | 20 | ------- | .73 | 4.60 | 1.15 | 1.61 | 13.50 |
| 5 | ------- | 1.46 | .51 | 2.18 | 1.07 | 4.50 | 21 | ------- | .50 | 3.52 | .90 | 1.50 | 12.20 |
| 6 | ------- | 3.48 | .30 | 1.90 | 2.15 | 4.70 | 22 | ------- | .65 | 2.10 | .81 | 1.42 | 10.40 |
| 7 | ------- | 2.87 | .35 | 1.50 | 2.76 | 5.00 | 23 | ------- | .62 | 5.85 | .69 | 1.30 | 8.20 |
| 8 | ------- | 1.95 | .60 | 1.20 | 3.72 | 5.80 | 24 | ------- | .65 | 7.30 | .85 | 1.44 | 6.44 |
| 9 | ------- | 1.45 | .35 | 1.05 | 3.13 | 6.50 | 25 | ------- | .70 | 6.40 | 1.28 | 1.12 | 5.40 |
| 10 | ------- | 1.00 | .23 | .85 | 2.59 | 6.72 | 26 | 3.56 | 1.20 | 4.60 | 1.12 | 1.05 | 4.75 |
| 11 | ------- | .82 | .20 | .90 | 2.10 | 6.10 | 27 | 3.00 | 1.30 | 3.60 | 1.32 | 1.02 | 4.20 |
| 12 | ------- | .50 | .22 | .81 | 1.71 | 5.33 | 28 | 2.68 | 1.40 | 2.85 | 1.00 | 1.00 | 4.05 |
| 13 | ------- | 1.78 | .12 | 1.05 | 2.62 | 4.64 | 29 | 2.25 | 1.60 | 2.58 | .89 | 1.02 | 3.80 |
| 14 | ------- | 1.92 | .10 | 1.42 | 4.05 | 4.07 | 30 | 2.00 | 1.48 | 2.72 | .80 | 1.45 | 3.50 |
| 15 | ------- | 1.85 | .18 | 1.70 | 3.20 | 3.98 | 31 | 1.76 | 1.10 | ------- | .58 | ------ | 3.20 |
| 16 | ------- | 1.53 | 3.45 | 2.00 | 2.62 | 9.75 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF TAR RIVER AT TARBORO, N. C., FOR 1897-1898.

| 1897. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.50 | 3.10 | 11.90 | 4.35 | 2.65 | 1.50 | 0.70 | 1.80 | 0.90 | —0.60 | 0.80 | 2.20 |
| 2 | 3.55 | 5.50 | 10.00 | 4.30 | 4.10 | 1.40 | .50 | 1.25 | 3.00 | — .65 | 1.40 | 3.10 |
| 3 | 3.60 | 7.40 | 8.00 | 4.00 | 5.10 | 2.70 | .40 | 1.20 | 5.00 | — .70 | 2.00 | 3.00 |
| 4 | 3.31 | 8.90 | 6.90 | 4.30 | 5.90 | 2.20 | .30 | .70 | 3.60 | — .62 | 4.60 | 2.50 |
| 5 | 3.25 | 10.20 | 6.20 | 4.95 | 5.10 | 1.75 | .20 | .50 | 2.10 | — .64 | 4.40 | 2.30 |
| 6 | 3.22 | 10.22 | 5.60 | 6.10 | 3.80 | 1.50 | .40 | .45 | 1.35 | — .40 | 3.00 | 2.80 |
| 7 | 3.15 | 9.60 | 6.60 | 7.50 | 3.30 | 1.35 | .30 | .40 | 1.40 | — .50 | 2.10 | 3.20 |
| 8 | 3.00 | 10.10 | 8.55 | 8.50 | 3.10 | 2.00 | 1.05 | 1.30 | 1.00 | — .60 | 1.50 | 2.80 |
| 9 | 2.90 | 11.38 | 10.30 | 7.40 | 2.70 | 2.02 | .60 | 1.00 | .70 | — .70 | 1.65 | 2.40 |
| 10 | 2.60 | 12.35 | 11.80 | 7.80 | 2.50 | 1.55 | .50 | .90 | .40 | — .60 | 1.20 | 2.20 |
| 11 | 2.50 | 11.10 | 11.70 | 11.00 | 2.40 | 1.30 | 1.50 | .50 | .10 | — .50 | .80 | 1.90 |
| 12 | 2.45 | 8.09 | 11.10 | 13.40 | 2.25 | 1.35 | 1.63 | .40 | — .05 | — .52 | .90 | 1.90 |
| 13 | 2.55 | 7.00 | 12.80 | 14.90 | 2.35 | 1.15 | 2.50 | .85 | — .07 | — .50 | .70 | 1.60 |
| 14 | 2.60 | 6.98 | 15.00 | 14.50 | 3.80 | 1.10 | 7.20 | .60 | — .02 | — .51 | .50 | 1.70 |
| 15 | 3.00 | 7.51 | 16.50 | 13.60 | 5.40 | 1.10 | 5.80 | .20 | .02 | — .63 | .60 | 1.90 |
| 16 | 3.35 | 6.70 | 17.90 | 11.50 | 7.50 | 1.05 | 4.70 | .15 | — .05 | — .71 | .70 | 2.10 |
| 17 | 3.43 | 6.15 | 19.20 | 8.60 | 7.00 | .80 | 2.80 | .35 | — .21 | — .90 | .50 | 2.20 |
| 18 | 3.50 | 6.30 | 19.60 | 6.70 | 4.60 | 1.50 | 2.00 | .10 | — .20 | —1.00 | .40 | 2.90 |
| 19 | 3.40 | 6.20 | 19.70 | 5.70 | 3.50 | .90 | 1.33 | — .10 | — .20 | — .90 | .45 | 2.60 |
| 20 | 3.35 | 5.55 | 18.15 | 5.00 | 3.00 | .60 | 1.28 | — .08 | — .30 | — .80 | .50 | 2.00 |
| 21 | 3.40 | 6.00 | 16.00 | 4.30 | 2.70 | .40 | 1.20 | — .08 | — .50 | — .50 | .40 | 2.10 |
| 22 | 4.30 | 7.95 | 13.60 | 3.90 | 2.30 | 2.60 | 3.70 | — .05 | — .30 | — .55 | .45 | 2.20 |
| 23 | 6.25 | 9.62 | 11.30 | 3.70 | 1.80 | 2.10 | 6.05 | — .15 | — .40 | .50 | .65 | 3.30 |
| 24 | 8.30 | 11.25 | 9.10 | 3.50 | 1.70 | 1.40 | 5.80 | .50 | — .35 | .80 | .45 | 5.30 |
| 25 | 6.45 | 12.15 | 7.80 | 3.40 | 1.80 | 1.00 | 4.50 | .60 | — .40 | .70 | .40 | 6.10 |
| 26 | 4.80 | 13.30 | 7.00 | 3.10 | 1.60 | .80 | 3.30 | .62 | — .50 | .90 | .35 | 4.20 |
| 27 | 4.30 | 13.75 | 6.20 | 3.20 | 1.50 | .70 | 2.80 | .40 | — .60 | .50 | .45 | 4.00 |
| 28 | 4.40 | 13.00 | 5.40 | 3.00 | 1.90 | .65 | 2.60 | .23 | — .65 | .70 | 1.00 | 4.10 |
| 29 | 4.10 | ------- | 4.90 | 2.80 | 2.00 | 1.10 | 2.25 | .05 | — .55 | 1.50 | 1.80 | 5.00 |
| 30 | 3.90 | ------- | 4.70 | 2.70 | 1.60 | 1.09 | 2.60 | .02 | — .50 | 1.60 | 2.10 | 4.60 |
| 31 | 3.05 | ------- | 4.50 | ------- | 1.40 | ------- | 2.30 | .65 | ------- | 1.30 | ------ | 3.90 |
| 1898. | | | | | | | | | | | | |
| 1 | 3.40 | 3.30 | 1.80 | 7.30 | 4.50 | 5.70 | 1.80 | 1.20 | 8.30 | 1.60 | 1.70 | 4.70 |
| 2 | 3.00 | 3.25 | 1.65 | 9.20 | 3.70 | 6.10 | 1.10 | 2.15 | 6.30 | 1.20 | 2.20 | 5.30 |
| 3 | 2.90 | 3.10 | 1.55 | 8.90 | 3.40 | 5.00 | .90 | 2.80 | 3.10 | .80 | 2.30 | 5.20 |
| 4 | 2.70 | 2.80 | 1.70 | 7.00 | 2.85 | 4.10 | .60 | 4.00 | 3.20 | 1.20 | 1.80 | 6.20 |
| 5 | 2.40 | 2.60 | 3.20 | 5.90 | 2.50 | 3.00 | .50 | 3.20 | 3.10 | 1.30 | 1.70 | 8.50 |
| 6 | 2.20 | 2.40 | 5.00 | 6.20 | 2.30 | 2.40 | 1.90 | 2.30 | 2.80 | 1.40 | 2.90 | 11.00 |
| 7 | 2.25 | 2.30 | 7.30 | 8.00 | 3.00 | 2.00 | 7.50 | 1.80 | 2.60 | 1.30 | 2.50 | 12.50 |
| 8 | 2.12 | 2.30 | 7.00 | 9.80 | 4.60 | 1.70 | 9.90 | 1.60 | 2.10 | 1.20 | 2.60 | 13.00 |
| 9 | 2.00 | 2.40 | 4.90 | 9.10 | 7.10 | 1.50 | 9.60 | 1.30 | 2.60 | 1.60 | 2.70 | 11.30 |
| 10 | 1.90 | 2.20 | 4.00 | 6.40 | 7.80 | 1.30 | 8.50 | 1.00 | 3.20 | 1.50 | 2.90 | 9.40 |
| 11 | 2.00 | 2.10 | 3.70 | 5.50 | 6.50 | 1.10 | 11.20 | .90 | 2.60 | 1.60 | 2.30 | 7.00 |
| 12 | 2.05 | 2.00 | 3.50 | 5.10 | 4.90 | 1.00 | 11.70 | 1.50 | 1.70 | 1.50 | 2.80 | 5.70 |
| 13 | 2.30 | 1.90 | 3.20 | 4.50 | 4.10 | .80 | 10.70 | 2.10 | 1.50 | 1.40 | 1.50 | 5.00 |
| 14 | 2.75 | 1.90 | 2.90 | 4.10 | 4.00 | 1.50 | 8.80 | 4.10 | 1.30 | 1.10 | 1.40 | 4.50 |
| 15 | 2.70 | 2.00 | 3.60 | 4.00 | 3.60 | 1.00 | 7.90 | 4.20 | 1.00 | 1.00 | 1.60 | 4.10 |
| 16 | 2.60 | 1.70 | 5.00 | 3.80 | 3.30 | 1.90 | 6.30 | 3.40 | .80 | .80 | 1.70 | 3.60 |
| 17 | 2.40 | 1.70 | 5.80 | 3.50 | 5.95 | 3.30 | 5.20 | 2.40 | .70 | .50 | 2.10 | 3.40 |
| 18 | 2.90 | 1.60 | 4.70 | 3.30 | 8.40 | 5.60 | 4.30 | 2.30 | .60 | .70 | 2.30 | 3.10 |
| 19 | 3.00 | 1.55 | 4.20 | 3.10 | 9.80 | 5.40 | 4.20 | 2.10 | .50 | .60 | 2.50 | 3.20 |
| 20 | 2.73 | 1.50 | 4.00 | 2.80 | 9.00 | 5.50 | 3.70 | 2.50 | .50 | 2.60 | 4.30 | 3.30 |
| 21 | 2.60 | 1.60 | 3.60 | 2.60 | 7.20 | 6.70 | 4.20 | 5.30 | .50 | 3.00 | 4.90 | 3.70 |
| 22 | 2.60 | 2.30 | 3.40 | 2.40 | 5.70 | 6.30 | 3.15 | 6.50 | .40 | 2.80 | 5.50 | 5.00 |
| 23 | 2.70 | 2.40 | 3.00 | 2.20 | 4.60 | 5.30 | 2.80 | 6.00 | .60 | 2.30 | 4.30 | 5.70 |
| 24 | 2.55 | 2.50 | 2.70 | 2.00 | 5.10 | 4.10 | 2.40 | 5.30 | 4.70 | 1.90 | 3.70 | 6.30 |
| 25 | 2.70 | 2.45 | 2.40 | 1.90 | 8.90 | 3.10 | 2.20 | 5.50 | 7.30 | 2.30 | 3.40 | 6.00 |
| 26 | 3.00 | 2.30 | 2.50 | 2.30 | 11.00 | 2.50 | 1.90 | 4.60 | 6.20 | 2.00 | 3.20 | 5.60 |
| 27 | 3.95 | 2.00 | 2.40 | 2.90 | 12.80 | 2.00 | 2.00 | 2.80 | 4.00 | 2.70 | 3.20 | 5.00 |
| 28 | 5.90 | 1.70 | 2.30 | 4.20 | 13.70 | 2.30 | 1.50 | 3.20 | 2.80 | 2.50 | 2.90 | 4.50 |
| 29 | 5.40 | ------- | 2.30 | 5.30 | 12.40 | 2.50 | 1.40 | 4.50 | 2.20 | 2.80 | 3.00 | 4.20 |
| 30 | 4.20 | ------- | 2.20 | 5.20 | 9.10 | 2.70 | 1.30 | 8.80 | 2.10 | 2.70 | 3.70 | 3.80 |
| 31 | 3.50 | ------- | 2.50 | ------- | 6.50 | ------- | 1.30 | 8.90 | ------- | 1.30 | ------ | 3.50 |

DAILY GAGE HEIGHT, IN FEET, OF TAR RIVER AT TARBORO, N. C., FOR 1899-1900.

| 1899. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 3.20 | 6.30 | 15.00 | 8.60 | 4.60 | 2.40 | 1.00 | 10.00 | 0.60 | 1.70 | 4.30 | 3.70 |
| 2 | 3.10 | 7.20 | 14.80 | 7.80 | 4.10 | 3.50 | 1.00 | 10.60 | .50 | 1.30 | 6.50 | 2.80 |
| 3 | 3.40 | 8.30 | 15.40 | 7.20 | 3.90 | 3.00 | .95 | 9.60 | .40 | 1.40 | 9.30 | 2.70 |
| 4 | 3.70 | 8.50 | 16.70 | 6.30 | 4.00 | 2.90 | 1.00 | 7.70 | .30 | .90 | 9.70 | 3.00 |
| 5 | 3.50 | 8.90 | 16.50 | 7.00 | 3.90 | 3.00 | .95 | 5.50 | .60 | .80 | 6.50 | 3.20 |
| 6 | 3.30 | 12.50 | 17.80 | 8.00 | 3.80 | 2.50 | .70 | 4.50 | .50 | 1.40 | 5.70 | 2.80 |
| 7 | 3.40 | 15.70 | 18.30 | 8.90 | 3.60 | 2.00 | 3.20 | 4.00 | .40 | 2.20 | 5.20 | 2.60 |
| 8 | 3.50 | 18.60 | 18.60 | 11.70 | 3.50 | 1.60 | 2.50 | 3.70 | .50 | 7.00 | 4.60 | 2.50 |
| 9 | 3.40 | 21.90 | 18.40 | 14.50 | 3.60 | 1.50 | 2.00 | 4.50 | .70 | 8.70 | 4.20 | 2.30 |
| 10 | 4.30 | 24.10 | 16.40 | 16.50 | 3.70 | 3.00 | 1.50 | 4.90 | 3.00 | 7.30 | 3.60 | 2.30 |
| 11 | 3.40 | 25.00 | 13.80 | 17.80 | 3.80 | 2.80 | 1.60 | 3.80 | 1.60 | 6.80 | 3.40 | 2.00 |
| 12 | 3.30 | Ice. | 11.10 | 18.30 | 3.60 | 2.50 | 2.50 | 3.10 | 3.60 | 6.00 | 3.00 | 2.20 |
| 13 | 3.70 | Ice. | 9.00 | 17.00 | 3.50 | 5.40 | 1.60 | 2.60 | 5.00 | 5.20 | 2.70 | 2.40 |
| 14 | 4.80 | Ice. | 8.20 | 14.40 | 4.30 | 7.60 | 1.40 | 3.00 | 3.30 | 4.30 | 2.60 | 3.00 |
| 15 | 6.80 | 14.75 | 9.80 | 10.70 | 4.00 | 9.30 | 1.10 | 4.10 | 2.10 | 3.50 | 2.40 | 3.70 |
| 16 | 8.80 | 11.70 | 13.80 | 8.00 | 4.30 | 10.60 | 1.00 | 3.80 | 1.60 | 3.00 | 2.30 | 3.50 |
| 17 | 10.30 | 11.80 | 16.70 | 7.00 | 3.70 | 9.50 | .90 | 4.30 | 1.50 | 2.70 | 2.40 | 2.90 |
| 18 | 10.40 | 14.10 | 19.00 | 6.20 | 3.10 | 9.80 | 1.10 | 5.20 | 1.10 | 2.40 | 2.20 | 2.60 |
| 19 | 9.10 | 17.00 | 20.90 | 5.80 | 2.80 | 8.80 | 1.40 | 6.00 | 1.00 | 2.20 | 2.00 | 2.50 |
| 20 | 8.30 | 19.00 | 21.00 | 5.40 | 2.60 | 5.30 | 3.80 | 5.40 | .80 | 2.00 | 1.80 | 2.40 |
| 21 | 7.00 | 22.00 | 19.70 | 5.50 | 2.80 | 3.70 | 3.20 | 4.80 | .70 | .80 | 2.10 | 2.30 |
| 22 | 5.90 | 23.00 | 17.50 | 5.30 | 2.60 | 3.00 | 2.30 | 4.20 | .62 | 1.60 | 2.00 | 2.50 |
| 23 | 5.30 | 23.40 | 16.30 | 5.00 | 2.70 | 2.40 | 1.70 | 3.00 | .50 | 1.50 | 1.90 | 2.10 |
| 24 | 4.90 | 23.10 | 13.70 | 4.60 | 2.70 | 2.00 | 1.30 | 2.80 | .60 | 1.40 | 1.80 | 2.90 |
| 25 | 4.50 | 22.00 | 10.00 | 4.30 | 2.80 | 1.50 | 1.50 | 2.50 | 1.30 | 1.80 | 1.90 | 5.40 |
| 26 | 4.40 | 20.50 | 8.60 | 4.10 | 2.70 | 1.40 | 2.60 | 1.80 | 1.00 | 1.40 | 2.00 | 7.80 |
| 27 | 4.50 | 18.20 | 7.80 | 4.30 | 2.50 | 1.50 | 3.90 | 1.70 | .50 | 1.30 | 1.90 | 8.50 |
| 28 | 4.70 | 16.30 | 7.50 | 5.40 | 2.30 | 1.40 | 6.90 | 1.50 | 3.50 | 1.10 | 2.20 | 6.80 |
| 29 | 4.10 | ------ | 7.40 | 7.50 | 1.90 | 1.00 | 8.20 | 1.40 | 3.80 | 1.30 | 2.40 | 5.40 |
| 30 | 4.20 | ------ | 7.90 | 6.20 | 2.10 | .98 | 8.50 | 1.10 | 2.60 | 2.50 | 2.70 | 5.00 |
| 31 | 4.30 | ------ | 8.50 | ------ | 1.70 | ------ | 9.45 | .80 | ------ | 3.20 | ------ | 4.10 |
| 1900. | | | | | | | | | | | | |
| 1 | 3.7 | 4.0 | 10.0 | 8.6 | 5.0 | 2.6 | 2.0 | 1.7 | 0.8 | —0.2 | —0.3 | 0.8 |
| 2 | 3.0 | 3.8 | 10.5 | 9.0 | 4.5 | 2.1 | 1.3 | 1.3 | .4 | — .2 | — .2 | .7 |
| 3 | 2.9 | 3.7 | 12.3 | 9.1 | 4.6 | 2.0 | 1.5 | 1.6 | .3 | — .2 | — .3 | .6 |
| 4 | 2.6 | 3.6 | 13.5 | 8.0 | 4.3 | 1.9 | 1.6 | 1.8 | .2 | — .2 | 1.7 | 1.3 |
| 5 | 2.5 | 3.5 | 14.3 | 7.5 | 4.0 | 1.8 | 1.0 | .7 | .0 | — .2 | 3.4 | 1.2 |
| 6 | 2.6 | 4.8 | 13.0 | 7.6 | 3.7 | 1.5 | 1.1 | .6 | .0 | — .1 | 4.5 | 1.6 |
| 7 | 3.4 | 6.0 | 10.5 | 7.3 | 3.4 | 1.3 | .7 | .5 | .0 | — .2 | 5.1 | 3.7 |
| 8 | 3.5 | 5.9 | 8.3 | 6.0 | 3.2 | 1.2 | .6 | .2 | — .1 | — .2 | 3.8 | 3.0 |
| 9 | 3.4 | 5.4 | 7.8 | 5.3 | 3.0 | 1.3 | .7 | .1 | — .1 | 1.2 | 3.4 | 2.1 |
| 10 | 4.3 | 5.0 | 9.0 | 5.0 | 3.3 | 1.5 | .6 | .0 | — .1 | .5 | 2.0 | 1.6 |
| 11 | 3.4 | 6.1 | 11.2 | 4.7 | 3.6 | 2.0 | .4 | .0 | — .1 | .4 | 1.6 | 1.7 |
| 12 | 3.3 | 7.8 | 12.2 | 4.5 | 4.0 | 1.8 | .3 | .0 | — .2 | .3 | 1.4 | 1.5 |
| 13 | 3.7 | 10.6 | 11.4 | 5.6 | 3.1 | 1.3 | .4 | .0 | — .2 | .4 | 1.3 | 1.2 |
| 14 | 9.4 | 12.8 | 9.8 | 8.7 | 2.8 | 1.4 | .3 | .0 | — .2 | .2 | 1.0 | .9 |
| 15 | 10.5 | 14.5 | 8.0 | 9.8 | 2.5 | 1.0 | .2 | .1 | — .2 | .1 | .6 | .8 |
| 16 | 9.5 | 15.8 | 7.3 | 9.3 | 2.4 | 1.4 | 1.6 | .3 | — .2 | .0 | .4 | .7 |
| 17 | 7.3 | 17.0 | 8.3 | 8.3 | 2.2 | 2.5 | 1.4 | 1.3 | — .2 | .0 | .6 | .6 |
| 18 | 6.2 | 18.0 | 9.1 | 7.2 | 2.0 | 3.5 | .7 | .5 | .5 | .0 | .4 | 1.1 |
| 19 | 5.9 | 16.5 | 9.5 | 6.0 | 4.0 | 6.0 | .3 | 1.0 | 1.0 | .0 | .2 | .7 |
| 20 | 6.7 | 13.7 | 8.5 | 9.4 | 5.0 | 7.3 | .2 | .7 | .4 | .0 | .7 | .6 |
| 21 | 8.9 | 9.8 | 7.3 | 10.8 | 4.8 | 5.5 | .1 | .6 | .2 | — .1 | .4 | 1.2 |
| 22 | 9.5 | 8.0 | 7.1 | 13.2 | 4.2 | 4.3 | .0 | .4 | .0 | — .1 | .2 | 2.1 |
| 23 | 10.3 | 10.0 | 6.5 | 14.5 | 3.4 | 3.5 | .0 | .2 | .0 | — .1 | .1 | 3.7 |
| 24 | 9.0 | 11 5 | 6.0 | 15.3 | 3.0 | 3.5 | .0 | .1 | .0 | — .2 | .3 | 4.6 |
| 25 | 7.3 | 13.9 | 6.1 | 13.8 | 4.5 | 4.3 | .0 | .0 | — .1 | — .2 | .4 | 4.0 |
| 26 | 6.4 | 13.7 | 6.3 | 11.0 | 5.9 | 6.5 | .5 | .1 | — .1 | — .1 | .5 | 2.8 |
| 27 | 5.5 | 12.6 | 8.3 | 8.6 | 5.6 | 5.0 | 1.0 | .2 | — .1 | — .1 | .4 | 2.6 |
| 28 | 5.0 | 11.9 | 9.5 | 7.2 | 4.5 | 4.5 | 1.2 | .0 | — .1 | — .1 | .3 | 2.2 |
| 29 | 4.6 | ------ | 10.0 | 6.0 | 3.6 | 3.4 | 4.5 | .0 | — .1 | — .2 | 1.3 | 2.0 |
| 30 | 4.5 | ------ | 9.1 | 5.4 | 3.0 | 2.6 | 3.0 | .4 | — .1 | — .3 | 1.2 | 2.5 |
| 31 | 4.4 | ------ | 7.8 | ------ | 2.8 | ------ | 2.3 | .6 | ------ | — .3 | ------ | 3.2 |

RATING TABLE FOR TAR RIVER AT TARBORO, N. C., FOR 1896, 1897–1898, 1899 AND 1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1896. | | | | | | | |
| 0.00 | 280 | 4.00 | 1,880 | 8.00 | 4,400 | 12.00 | 7,260 |
| 0.20 | 324 | 4.20 | 2,000 | 8.20 | 4,540 | 12.20 | 7,420 |
| 0.40 | 368 | 4.40 | 2,120 | 8.40 | 4,680 | 12.40 | 7,580 |
| 0.60 | 412 | 4.60 | 2,240 | 8.60 | 4,820 | 12.60 | 7,740 |
| 0.80 | 456 | 4.80 | 2,360 | 8.80 | 4,960 | 12.80 | 7,920 |
| 1.00 | 500 | 5.00 | 2,480 | 9.00 | 5,100 | 13.00 | 8,100 |
| 1.20 | 560 | 5.20 | 2,600 | 9.20 | 5,240 | 13.20 | 8,280 |
| 1.40 | 630 | 5.40 | 2,720 | 9.40 | 5,380 | 13.40 | 8,460 |
| 1.60 | 710 | 5.60 | 2,840 | 9.60 | 5,520 | 13.60 | 8,640 |
| 1.80 | 790 | 5.80 | 2,970 | 9.80 | 5,660 | 14.00 | 9,000 |
| 2.00 | 870 | 6.00 | 3,100 | 10.00 | 5,800 | 14.50 | 9,460 |
| 2.20 | 950 | 6.20 | 3,220 | 10.20 | 5,940 | 15.00 | 9,960 |
| 2.40 | 1,035 | 6.40 | 3,340 | 10.40 | 6,080 | 15.50 | 10,440 |
| 2.60 | 1,120 | 6.60 | 3,460 | 10.60 | 6,220 | 16.00 | 10,940 |
| 2.80 | 1,220 | 6.80 | 3,580 | 10.80 | 6,360 | 16.50 | 11,420 |
| 3.00 | 1,320 | 7.00 | 3,710 | 11.00 | 6,500 | 17.00 | 11,920 |
| 3.20 | 1,420 | 7.20 | 3,840 | 11.20 | 6,640 | 17.50 | 12,400 |
| 3.40 | 1,530 | 7.40 | 3,980 | 11.40 | 6,780 | 18.00 | 12,900 |
| 3.60 | 1,640 | 7.60 | 4,120 | 11.60 | 6,940 | ----- | ------ |
| 3.80 | 1,760 | 7.80 | 4,260 | 11.80 | 7,100 | ----- | ------ |
| 1897-1898. | | | | | | | |
| —1.00 | 170 | 0.00 | 270 | 3.50 | 1.680 | 11.00 | 6,370 |
| —0.90 | 177 | 0.20 | 310 | 4.10 | 1,935 | 12.00 | 7,180 |
| —0.80 | 185 | 0.40 | 360 | 4.50 | 2,197 | 13.00 | 8,050 |
| —0.70 | 192 | 0.60 | 410 | 5.00 | 2,460 | 14.00 | 8,950 |
| —0.60 | 200 | 0.80 | 470 | 5.50 | 2,735 | 15.00 | 9,900 |
| —0.50 | 210 | 1.00 | 540 | 6.00 | 3,015 | 16.00 | 10,900 |
| —0.40 | 220 | 1.50 | 730 | 7.00 | 3.600 | 17.00 | 11,900 |
| —0.30 | 230 | 2.00 | 950 | 8.00 | 4,250 | 18.00 | 12,900 |
| —0.20 | 240 | 2.50 | 1,180 | 9.00 | 4,950 | 19.00 | 13,900 |
| —0.10 | 255 | 3.00 | 1,430 | 10.00 | 5,650 | 20.00 | 14,900 |
| 1899. | | | | | | | |
| 0.4 | 370 | 3.0 | 1,200 | 6.5 | 3,200 | 13.0 | 8,470 |
| 0.6 | 410 | 3.2 | 1,300 | 7.0 | 3,550 | 13.5 | 8,920 |
| 0.8 | 453 | 3.4 | 1,400 | 7.5 | 3,910 | 14.0 | 9,370 |
| 1.0 | 500 | 3.6 | 1,500 | 8.0 | 4,285 | 14.5 | 9,820 |
| 1.2 | 555 | 3.8 | 1,600 | 8.5 | 4,685 | 15.0 | 10,270 |
| 1.4 | 615 | 4.0 | 1,700 | 9.0 | 5,085 | 16.0 | 11,170 |
| 1.6 | 675 | 4.2 | 1,810 | 9.5 | 5,500 | 17.0 | 12,070 |
| 1.8 | 735 | 4.4 | 1,920 | 10.0 | 5,915 | 18.0 | 12,970 |
| 2.0 | 800 | 4.6 | 2,030 | 10.5 | 6,330 | 19.0 | 13,870 |
| 2.2 | 875 | 4.8 | 2,140 | 11.0 | 6,750 | 20.0 | 14,850 |
| 2.4 | 953 | 5.0 | 2,250 | 11.5 | 7,175 | 25.0 | 19,850 |
| 2.6 | 1,031 | 5.5 | 2,550 | 12.0 | 7,600 | ---- | ------ |
| 2.8 | 1,110 | 6.0 | 2,865 | 12.5 | 8,025 | ---- | ------ |
| 1900. | | | | | | | |
| 0.2 | 290 | 2.8 | 1,240 | 6.0 | 2,865 | 12.5 | 8,070 |
| 0.4 | 350 | 3.0 | 1,320 | 6.5 | 3,205 | 13.0 | 8,490 |
| 0.6 | 410 | 3.2 | 1,400 | 7.0 | 3,580 | 13.5 | 8,925 |
| 0.8 | 480 | 3.4 | 1,480 | 7.5 | 3,955 | 14.0 | 9,370 |
| 1.0 | 550 | 3.6 | 1,565 | 8.0 | 4,330 | 14.5 | 9,820 |
| 1.2 | 620 | 3.8 | 1,655 | 8.5 | 4,745 | 15.0 | 10,270 |
| 1.4 | 690 | 4.0 | 1,745 | 9.0 | 5,160 | 16.0 | 11,170 |
| 1.6 | 760 | 4.2 | 1,845 | 9.5 | 5,575 | 17.0 | 12,070 |
| 1.8 | 840 | 4.4 | 1,945 | 10.0 | 5,990 | 18.0 | 12,970 |
| 2.0 | 920 | 4.6 | 2,045 | 10.5 | 6,405 | 19.0 | 13,870 |
| 2.2 | 1,000 | 4.8 | 2,155 | 11.0 | 6,820 | 20.0 | 14,850 |
| 2.4 | 1,080 | 5.0 | 2,265 | 11.5 | 7,235 | ---- | ------ |
| 2.6 | 1,160 | 5.5 | 2,565 | 12.0 | 7,650 | ---- | ------ |

ESTIMATED MONTHLY DISCHARGE OF TAR RIVER AT TARBORO, N. C.
[Drainage area, 2,290 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| July 26 to 31 | 1,618 | 774 | 1,268 | 15,090 | 0.13 | 0.55 |
| August | 1,574 | 390 | 628 | 38,614 | 0.31 | 0.27 |
| September | 3,910 | 302 | 1,190 | 70,809 | 0.58 | 0.52 |
| October | 2,000 | 408 | 703 | 43,226 | 0.35 | 0.30 |
| November | 1,910 | 476 | 842 | 50,102 | 0.41 | 0.37 |
| December | 9,460 | 1,420 | 3,739 | 229,904 | 1.88 | 1.63 |
| 1897. | | | | | | |
| January | 4,460 | 1,155 | 1,814 | 111,539 | 0.91 | 0.79 |
| February | 8,725 | 1,480 | 4,888 | 271,466 | 2.22 | 2.13 |
| March | 14,600 | 2,197 | 6,789 | 417,440 | 3.41 | 2.96 |
| April | 9,800 | 1,280 | 3,636 | 216,357 | 1.77 | 1.59 |
| May | 3,915 | 690 | 1,580 | 97,150 | 0.79 | 0.69 |
| June | 1,280 | 360 | 689 | 40,999 | 0.33 | 0.30 |
| July | 3,725 | 310 | 1,198 | 73,665 | 0.60 | 0.52 |
| August | 860 | 247 | 399 | 24,533 | 0.20 | 0.17 |
| September | 2,460 | 196 | 490 | 29,155 | 0.23 | 0.21 |
| October | 770 | 170 | 295 | 18,139 | 0.15 | 0.13 |
| November | 2,250 | 347 | 674 | 40,105 | 0.32 | 0.29 |
| December | 3,072 | 770 | 1,430 | 87,928 | 0.71 | 0.62 |
| The year | 14,600 | 170 | 1,990 | 1,428,476 | 11.64 | 0.87 |
| 1898. | | | | | | |
| January | 2,957 | 905 | 1,380 | 84,853 | 0.69 | 0.60 |
| February | 1,580 | 730 | 1,051 | 58,370 | 0.48 | 0.46 |
| March | 3,787 | 750 | 1,697 | 104,345 | 0.85 | 0.74 |
| April | 5,510 | 905 | 2,523 | 150,129 | 1.23 | 1.10 |
| May | 8,680 | 1,085 | 3,438 | 211,394 | 1.73 | 1.50 |
| June | 3,420 | 470 | 1,600 | 95,207 | 0.78 | 0.70 |
| July | 6,925 | 385 | 2,419 | 148,738 | 1.22 | 1.06 |
| August | 4,880 | 505 | 1,733 | 106,558 | 0.87 | 0.76 |
| September | 4,460 | 360 | 1,356 | 80,688 | 0.65 | 0.59 |
| October | 1,430 | 385 | 816 | 50,174 | 0.41 | 0.36 |
| November | 2,735 | 690 | 1,338 | 79,617 | 0.64 | 0.58 |
| December | 8,050 | 1,480 | 3,110 | 191,227 | 1.57 | 1.36 |
| 1899. | | | | | | |
| January | 6,247 | 1,250 | 2,440 | 150,030 | 1.23 | 1.07 |
| February | 19,850 | 3,060 | 11,874 | 659,449 | 5.40 | .19 |
| March | 15,850 | 3,835 | 9,537 | 586,407 | 4.80 | 4.16 |
| April | 13,240 | 1,755 | 5,060 | 301,091 | 2.47 | 2.21 |
| May | 2,030 | 705 | 1,354 | 83,254 | 0.68 | 0.59 |
| June | 6,413 | 500 | 1,907 | 113,474 | 0.92 | 0.83 |
| July | 5,459 | 430 | 1,250 | 76,860 | 0.63 | 0.55 |
| August | 6,413 | 453 | 2,028 | 124,697 | 1.02 | 0.89 |
| September | 2,250 | 350 | 711 | 42,307 | 0.35 | 0.31 |
| October | 4,845 | 453 | 1,325 | 81,471 | 0.67 | 0.58 |
| November | 5,666 | 735 | 1,598 | 95,088 | 0.78 | 0.70 |
| December | 4,685 | 800 | 1,524 | 93,707 | 0.76 | 0.66 |
| 1900. | | | | | | |
| January | 6,405 | 1,120 | 2,864 | 176,101 | 1.44 | 1.25 |
| February | 12,970 | 1,520 | 5,952 | 330,557 | 2.70 | 2.60 |
| March | 9,640 | 2,865 | 5,445 | 334,800 | 2.75 | 2.38 |
| April | 10,540 | 1,995 | 4,802 | 285,739 | 2.34 | 2.10 |
| May | 2,805 | 920 | 1,664 | 102,315 | 0.84 | 0.73 |
| June | 3,805 | 550 | 1,376 | 81,878 | 0.67 | 0.60 |
| July | 1,995 | 230 | 552 | 33,941 | 0.28 | 0.24 |
| August | 840 | 230 | 384 | 23,611 | 0.20 | 0.17 |
| September | 550 | 134 | 233 | 13,864 | 0.11 | 0.10 |
| October | 620 | 87 | 210 | 12,912 | 0.10 | 0.09 |
| November | 2,325 | 87 | 659 | 39,213 | 0.32 | 0.29 |
| December | 2,045 | 410 | 880 | 54,109 | 0.44 | 0.38 |
| The year | 12,970 | 87 | 2,085 | 1,489,040 | 12.19 | 0.91 |

## NEUSE RIVER DRAINAGE BASIN.

### DESCRIPTION OF BASIN.

The Neuse River is formed in the northwest corner of Wake County, North Carolina, by the union of three small streams, the Eno, Flat, and Little rivers, which themselves take their rise in Person and Orange counties. The Neuse flows in a general southeasterly direction through Wake, Johnston, Wayne, Lenoir, and Craven counties, emptying into Pamlico Sound below New Bern, its general course, in its lower and navigable portion, being more nearly east. It forms for a short distance the boundary between Granville and Durham counties, and, near its mouth, between Pitt and Pamlico on its left and lower Craven on its right. Its length above New Bern, measured in a straight line, is about 150 miles, but it is much greater following the river, which is very tortuous in places. The principal towns on the stream are New Bern, Kinston, Goldsboro, Smithfield, and Hillsboro, the last being on the Eno. The head of navigation on the river is Smithfield, about 160 miles above New Bern, and the Government has, at intervals, been engaged in improving the river up to this point.

The area drained by the Neuse comprises about 5,300 square miles. That part above New Bern measures about 4,250 square miles. The principal tributaries of the river enter from the north, viz., the Contentnea Creek (mouth about 30 miles above New Bern) and Little River (mouth just above Goldsboro, 97½ miles above New Bern), draining, respectively, about 990 and 325 square miles, approximately. The river crosses the fall line near Smithfield, and below that point there is no water-power. The fall at Smithfield, however, is not very great, and the fall line is less prominent than in the case of the Roanoke and the Tar, the ledge of rock, forming the falls at Weldon and Rocky Mount, showing itself only very slightly on the Neuse.

### MEASUREMENTS OF STREAM FLOW.

#### NEUSE RIVER AT SELMA, N. C.

This station is located on the Southern Railway bridge, about 3 miles from Selma, North Carolina. It was established by E. W. Myers, July 29, 1896. The bed of the river here is sandy and muddy and is liable to change in high water. The flow is obstructed by one pier of the bridge; the channel is straight, the current moderately swift and confined to one channel. The gage rod was moved February 6, 1899, to the highway bridge, crossing the river about 200 yards below. The zero of the gage rod is 33.7 feet west of the center rod of the truss of the bridge, and on the downstream side. The outer rim of the pulley wheel is 4.75 feet east of the zero of the gage rod, and the distance from the end of the weight to the marker on wire is 35.00 feet.

DISCHARGE MEASUREMENTS OF NEUSE RIVER AT SELMA, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1896. | | | | | |
| July 29 | E. W. Myers | 285 | 1.28 | 1.18 | 333 |
| Sept. 5 | ----do | 215 | 0.94 | 0.30 | 203 |
| Sept. 19 | A. P. Davis | 220 | 0.56 | 0.00 | 123 |
| 1897. | | | | | |
| Jan. 24 | E. W. Myers | 1,038 | 1.74 | 8.00 | 1,810 |
| Feb. 23 | ----do | 1,842 | 2.19 | 10.60 | 4,052 |
| Mar. 10 | ----do | 1,379 | 1.92 | 7.95 | 2,639 |
| May 18 | ----do | 497 | 1.58 | 2.40 | 789 |
| July 27 | ----do | 466 | 1.48 | 1.60 | 694 |
| Oct. 1 | ----do | 146 | 0.75 | —0.30 | 109 |
| 1898. | | | | | |
| Jan. 9 | E. W. Myers | 327 | 1.30 | 1.20 | 426 |
| Aug. 31 | ----do | 1,208 | 2.40 | 6.75 | 2,902 |

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1899. | | | |
| Feb. 6 | E. W. Myers | 15.68 | 7,807 |
| May 23 | ----do | 4.28 | 1,262 |
| June 5 | ----do | 3.10 | 773 |
| Oct. 12 | ----do | 1.79 | 574 |
| Nov. 26 | ----do | 1.30 | 356 |
| 1900. | | | |
| Feb. 8 | E. W. Myers | 3.40 | 1,117 |
| Apr. 12 | ----do | 3.80 | 1,076 |
| Apr. 24 | ----do | 17.05 | 9,027 |
| May 17 | ----do | 1.70 | 461 |
| June 27 | ----do | 3.00 | 590 |
| Aug. 10 | ----do | 0.61 | 139 |
| Nov. 6 | ----do | 4.60 | 1,278 |
| Nov. 22 | ----do | 0.90 | 243 |

DAILY GAGE HEIGHT, IN FEET, OF NEUSE RIVER AT SELMA, N. C., FOR 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2.00 | 0.30 | 5.00 | 0.60 | 3.70 | 17 | | 0.90 | 0.06 | 0.50 | 0.70 | 9.00 |
| 2 | | 2.00 | .30 | 7.20 | .60 | 3.50 | 18 | | .90 | .05 | .40 | .70 | 8.60 |
| 3 | | 2.00 | .35 | 2.30 | .60 | 3.00 | 19 | | 1.10 | .00 | .40 | .60 | 5.50 |
| 4 | | 1.90 | .40 | .90 | .40 | 2.80 | 20 | | 1.00 | .00 | .30 | .60 | 4.60 |
| 5 | | 1.20 | .30 | .50 | 1.20 | 2.60 | 21 | | 1.00 | 1.04 | .40 | .60 | 3.50 |
| 6 | | 1.00 | .30 | .50 | 4.80 | 2.50 | 22 | | .50 | .04 | .60 | .50 | 3.00 |
| 7 | | 1.00 | .30 | .30 | 4.40 | 3.00 | 23 | | .40 | 5.04 | .90 | .50 | 2.80 |
| 8 | | 1.00 | .60 | .20 | 2.30 | 4.00 | 24 | | .50 | 1.07 | .70 | .50 | 2.00 |
| 9 | | .90 | .50 | .20 | 1.50 | 3.80 | 25 | | 2.10 | .07 | .50 | .50 | 1.90 |
| 10 | | 5.05 | .30 | .10 | 1.20 | 3.50 | 26 | | 2.00 | .07 | .40 | .50 | 1.80 |
| 11 | | 5.50 | .20 | .20 | .80 | 2.60 | 27 | | 1.10 | .40 | .30 | .50 | 1.50 |
| 12 | | 5.50 | .20 | .50 | .80 | 2.00 | 28 | | 1.00 | .30 | .30 | .50 | 1.50 |
| 13 | | 2.25 | .01 | .70 | 1.30 | 2.00 | 29 | 1.10 | 1.00 | .10 | .30 | .50 | 1.40 |
| 14 | | 1.50 | .01 | 1.70 | 1.20 | 2.00 | 30 | 1.00 | .50 | 1.50 | .40 | .70 | 1.30 |
| 15 | | 1.20 | .01 | 1.00 | .90 | 3.00 | 31 | 1.00 | .30 | | .40 | | 1.20 |
| 16 | | .80 | .01 | .60 | .80 | 7.30 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF NEUSE RIVER AT SELMA, N. C., FOR 1897-1898.

| 1897. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.30 | 1.70 | 3.90 | 2.60 | 2.20 | 6.00 | 0.80 | 0.70 | 0.10 | —0.30 | 0.00 | 1.80 |
| 2 | 1.40 | 2.80 | 3.70 | 2.50 | 3.20 | 4.50 | 1.20 | .60 | .10 | — .30 | .00 | 1.70 |
| 3 | 1.30 | 6.70 | 3.40 | 2.40 | 4.00 | 2.90 | .80 | .50 | .10 | — .30 | .00 | 1.50 |
| 4 | 1.20 | 7.40 | 3.10 | 2.90 | 5.90 | 2.30 | .60 | .40 | .10 | — .30 | .45 | 1.40 |
| 5 | 1.20 | 8.60 | 2.80 | 3.40 | 3.80 | 1.70 | .50 | .20 | .20 | — .30 | .50 | 2.30 |
| 6 | 1.20 | 5.00 | 2.80 | 10.10 | 2.20 | 1.80 | .40 | .20 | .20 | — .30 | .60 | 2.30 |
| 7 | 1.20 | 12.40 | 5.20 | 9.70 | 2.00 | 3.20 | .70 | .20 | .10 | — .30 | 1.00 | 2.00 |
| 8 | 1.10 | 13.20 | 9.90 | 5.80 | 1.90 | 2.60 | .60 | .20 | .10 | — .30 | 1.00 | 1.70 |
| 9 | 1.10 | 13.20 | 10.50 | 4.70 | 1.80 | 1.90 | .60 | .20 | .10 | — .30 | 1.00 | 1.30 |
| 10 | 1.10 | 7.50 | 8.80 | 14.50 | 1.60 | 1.60 | 1.20 | .20 | .10 | — .30 | .80 | 1.00 |
| 11 | 1.10 | 5.70 | 9.00 | 13.90 | 1.60 | 1.40 | 1.30 | .20 | .10 | — .30 | .80 | 1.00 |
| 12 | 1.10 | 4.40 | 11.20 | 10.50 | 2.20 | 2.10 | 2.20 | .10 | .10 | — .30 | .70 | 1.20 |
| 13 | 1.20 | 4.20 | 15.80 | 7.00 | 2.00 | 1.10 | 5.50 | .10 | .10 | — .30 | .40 | 1.10 |
| 14 | 1.30 | 4.40 | 14.70 | 5.20 | 5.00 | 1.00 | 5.30 | .10 | .10 | — .30 | .40 | 1.00 |
| 15 | 1.60 | 4.50 | 16.50 | 3.80 | 8.80 | .90 | 4.80 | .10 | .10 | — .30 | .40 | 1.10 |
| 16 | 1.70 | 4.80 | 16.80 | 3.70 | 9.60 | .80 | 2.30 | .10 | .10 | — .30 | .40 | 3.00 |
| 17 | 1.70 | 4.70 | 15.70 | 3.50 | 4.30 | .70 | 1.20 | .20 | .10 | — .40 | .40 | 2.70 |
| 18 | 1.80 | 4.50 | 15.00 | 3.20 | 2.60 | .60 | 1.10 | .20 | .10 | — .40 | .40 | 1.90 |
| 19 | 2.20 | 4.40 | 11.70 | 2.90 | 2.30 | 1.10 | 1.00 | .10 | — .10 | — .30 | .30 | 1.20 |
| 20 | 2.50 | 3.00 | 8.30 | 2.60 | 2.00 | .50 | 1.30 | .10 | — .10 | — .30 | .30 | 1.30 |
| 21 | 2.90 | 3.50 | 8.20 | 2.40 | 1.90 | 2.20 | 4.10 | .10 | — .10 | .10 | .30 | 2.30 |
| 22 | 8.30 | 5.50 | 6.20 | 2.20 | 1.80 | 1.40 | 5.50 | .80 | — .10 | .40 | .30 | 4.20 |
| 23 | 9.30 | 10.60 | 4.60 | 2.10 | 1.60 | 1.10 | 5.60 | 1.40 | — .10 | .10 | .20 | 5.80 |
| 24 | 8.00 | 11.40 | 4.20 | 2.00 | 1.60 | .90 | 2.50 | 1.80 | — .10 | .20 | .20 | 6.00 |
| 25 | 4.30 | 11.30 | 3.70 | 2.00 | 1.80 | 2.00 | 1.50 | 1.40 | — .10 | .20 | .20 | 4.50 |
| 26 | 4.00 | 7.70 | 3.40 | 1.90 | 2.00 | 1.30 | 2.30 | .90 | — .30 | .30 | .20 | 3.00 |
| 27 | 3.80 | 7.30 | 3.10 | 1.90 | 2.40 | .80 | 1.90 | .50 | — .30 | .40 | .20 | 3.50 |
| 28 | 3.40 | 4.50 | 3.00 | 1.90 | 1.80 | .60 | 1.60 | .30 | — .30 | .30 | .20 | 4.10 |
| 29 | 2.80 | ------- | 2.70 | 1.80 | 1.40 | .70 | 1.60 | .10 | — .30 | .30 | 1.90 | 4.50 |
| 30 | 2.50 | ------- | 2.60 | 1.80 | 1.60 | 1.30 | 1.10 | .10 | — .30 | .20 | 2.30 | 4.20 |
| 31 | 2.20 | ------- | 2.60 | ------- | 1.50 | ------- | .80 | .10 | ------- | .00 | ------ | 3.10 |
| 1898. | | | | | | | | | | | | |
| 1 | 1.70 | 1.30 | 1.00 | 11.40 | 1.50 | 2.70 | 0.50 | 0.70 | 6.00 | 0.30 | 3.00 | 2.50 |
| 2 | 1.70 | 1.30 | 1.00 | 10.20 | 1.20 | 2.00 | .50 | .80 | 5.80 | .30 | 3.60 | 3.00 |
| 3 | 1.50 | 1.30 | 1.00 | 6.70 | 1.00 | 1.40 | .60 | 1.10 | 1.80 | .20 | 2.00 | 2.80 |
| 4 | 1.30 | 1.30 | 1.40 | 6.00 | .80 | 1.00 | .70 | 1.00 | 1.00 | .30 | 1.60 | 7.30 |
| 5 | 1.20 | 1.30 | 1.50 | 7.20 | .60 | .90 | .70 | .60 | 4.50 | .50 | 1.20 | 11.30 |
| 6 | 1.10 | 1.20 | 1.80 | 10.70 | .80 | .80 | 3.00 | .50 | 3.20 | .60 | 1.20 | 11.40 |
| 7 | 1.00 | 1.10 | 8.30 | 8.00 | 4.00 | .70 | 5.90 | .50 | 4.10 | .70 | 1.20 | 10.70 |
| 8 | .90 | 1.10 | 3.70 | 7.00 | 6.90 | .60 | 6.00 | .50 | 3.40 | 2.00 | 1.30 | 5.50 |
| 9 | 1.20 | 1.10 | 3.20 | 6.00 | 5.40 | .50 | 5.80 | .50 | 2.10 | 1.00 | 1.40 | 3.10 |
| 10 | 1.30 | 1.00 | 2.00 | 2.90 | 4.10 | .50 | 5.30 | .60 | 3.40 | 1.10 | 1.40 | 3.00 |
| 11 | 1.00 | 1.10 | 2.50 | 2.80 | 3.00 | .50 | 5.00 | .50 | 3.00 | 1.10 | 1.50 | 3.00 |
| 12 | 1.00 | 1.00 | 1.70 | 2.70 | 3.60 | 5.00 | 2.50 | 1.80 | 2.80 | 1.20 | 1.60 | 3.20 |
| 13 | 1.20 | 1.00 | 1.60 | 2.00 | 2.80 | 4.00 | 2.00 | 3.20 | 2.40 | 1.30 | 1.70 | 3.30 |
| 14 | 1.50 | 1.00 | 1.80 | 2.00 | 2.00 | 3.40 | 2.00 | 3.30 | 2.00 | 1.00 | 1.90 | 2.30 |
| 15 | 1.50 | 1.00 | 2.80 | 1.80 | 8.90 | 3.00 | 1.90 | 3.40 | 1.80 | .80 | 2.00 | 1.80 |
| 16 | 1.20 | 1.00 | 5.10 | 1.80 | 8.00 | 2.00 | 1.80 | 3.00 | 1.00 | .60 | 2.00 | 1.60 |
| 17 | 1.30 | 1.00 | 6.00 | 1.70 | 7.00 | 1.40 | 1.50 | 2.80 | 1.00 | .40 | 2.60 | 1.50 |
| 18 | 1.60 | 1.00 | 5.00 | 1.50 | 5.40 | 1.50 | 2.00 | 2.80 | 1.00 | .90 | 3.00 | 1.50 |
| 19 | 1.30 | .80 | 4.20 | 1.40 | 3.60 | 1.80 | 4.00 | 1.30 | 1.00 | 1.40 | 5.40 | 1.40 |
| 20 | 1.30 | 1.00 | 3.70 | 1.30 | 2.70 | 2.00 | 7.00 | 9.60 | 1.10 | 1.80 | 5.80 | 1.60 |
| 21 | 1.20 | 1.00 | 2.00 | 1.20 | 2.00 | 2.20 | 5.00 | 10.40 | 1.20 | 1.90 | 5.00 | 2.30 |
| 22 | 1.60 | 1.80 | 1.70 | 1.10 | 3.00 | 2.00 | 2.70 | 6.30 | 1.30 | 2.30 | 4.50 | 2.40 |
| 23 | 1.40 | 2.50 | 1.40 | 1.20 | 5.00 | 1.80 | 2.00 | 2.60 | 4.00 | 1.90 | 3.00 | 2.40 |
| 24 | 1.30 | 1.80 | 1.20 | 1.30 | 9.00 | 1.00 | 1.00 | 2.50 | 12.00 | 1.50 | 2.80 | 2.50 |
| 25 | 1.40 | 1.40 | 2.00 | 1.50 | 10.00 | .90 | .90 | 2.80 | 13.00 | 1.60 | 2.20 | 2.30 |
| 26 | 3.50 | 1.30 | 2.50 | 1.70 | 11.00 | .50 | .80 | 1.60 | 9.40 | 1.80 | 2.00 | 2.40 |
| 27 | 7.00 | 1.20 | 1.80 | 2.00 | 7.00 | .50 | .80 | 1.80 | 6.10 | 1.60 | 1.90 | 2.00 |
| 28 | 5.80 | 1.00 | 2.00 | 3.70 | 5.50 | .50 | .70 | 8.90 | 1.00 | 1.20 | 1.80 | 1.70 |
| 29 | 3.40 | ------- | 3.00 | 5.00 | 4.00 | .50 | .70 | 5.40 | 1.00 | 1.00 | 2.00 | 1.60 |
| 30 | 2.30 | ------- | 7.00 | 4.20 | 3.50 | .40 | .70 | 9.10 | .80 | 1.40 | 2.50 | 1.50 |
| 31 | 1.90 | ------- | 9.00 | ------- | 3.00 | ------- | .70 | 9.00 | ------- | 2.60 | ------ | 1.40 |

DAILY GAGE HEIGHT, IN FEET, OF NEUSE RIVER AT SELMA, N. C., FOR 1899-1900.

| 1899. | Jan. | Feb. | Mar. | Apr. | May | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.40 | 6.50 | 13.39 | 4.79 | 1.84 | 4.44 | 1.21 | 10.68 | 0.95 | 1.43 | 10.50 | 1.10 |
| 2 | 1.30 | 5.90 | 12.99 | 4.99 | 1.69 | 3.54 | 1.21 | 9.58 | .85 | 1.23 | 11.20 | 1.50 |
| 3 | 1.30 | 5.60 | 14.19 | 4.99 | 2.69 | 3.14 | 1.11 | 7.98 | .75 | 1.02 | 11.40 | 1.60 |
| 4 | 2.00 | 6.00 | 15.48 | 5.78 | 2.89 | 3.23 | 1.11 | 6.18 | .75 | .72 | 11.20 | 1.40 |
| 5 | 2.50 | 11.30 | 18.28 | 6.28 | 3.13 | 3.13 | 1.21 | 2.18 | .85 | .52 | 4.20 | 1.20 |
| 6 | 2.00 | 13.40 | 17.98 | 8.48 | 2.38 | 2.63 | 1.31 | 2.28 | .65 | .62 | 3.30 | 1.20 |
| 7 | 2.10 | 19.90 | 17.87 | 9.77 | 2.48 | 1.83 | 1.40 | 2.68 | .45 | 3.92 | 2.70 | 1.20 |
| 8 | 7.10 | 20.09 | 16.47 | 13.97 | 3.13 | 1.83 | 2.50 | 3.18 | .55 | 6.82 | 2.30 | 1.20 |
| 9 | 6.50 | 20.98 | 13.97 | 16.67 | 3.42 | 2.63 | 3.00 | 3.67 | .65 | 7.12 | 2.10 | 1.20 |
| 10 | 6.40 | 20.28 | 10.06 | 14.76 | 4.02 | 5.23 | 2.60 | 3.57 | .55 | 7.42 | 2.10 | 1.20 |
| 11 | 3.50 | 18.97 | 8.16 | 11.76 | 4.77 | 7.03 | 2.40 | 3.47 | .44 | 3.92 | 2.00 | 1.20 |
| 12 | 3.40 | 12.37 | 9.26 | 7.06 | 4.47 | 7.83 | 1.60 | 2.57 | .84 | 2.72 | 1.50 | 1.40 |
| 13 | 3.20 | 10.36 | 9.15 | 4.95 | 3.76 | 9.73 | 1.40 | 2.47 | .94 | 2.12 | 1.40 | 1.90 |
| 14 | 3.70 | 9.96 | 10.35 | 4.75 | 5.26 | 6.27 | 1.10 | 3.07 | 1.04 | 1.51 | 2.00 | 3.80 |
| 15 | 8.90 | 9.55 | 11.95 | 4.55 | 5.31 | 3.22 | 1.00 | 3.17 | .94 | 1.31 | 2.00 | 3.20 |
| 16 | 8.90 | 6.45 | 18.05 | 4.54 | 4.46 | 2.62 | 1.00 | 2.57 | .84 | 1.11 | 1.80 | 2.40 |
| 17 | 8.00 | 13.55 | 16.94 | 4.34 | 3.26 | 2.42 | 1.60 | 1.67 | .74 | .71 | 1.60 | 1.30 |
| 18 | 6.20 | 15.54 | 14.94 | 4.24 | 3.05 | 2.32 | 4.39 | 1.77 | .64 | 1.01 | 1.50 | 1.20 |
| 19 | 5.20 | 17.34 | 18.23 | 4.03 | 4.10 | 2.02 | 5.59 | 1.67 | .64 | 1.21 | 1.50 | 1.00 |
| 20 | 4.20 | 18.13 | 17.73 | 3.73 | 5.90 | 1.82 | 4.79 | 1.06 | .74 | 1.31 | 1.50 | 1.00 |
| 21 | 3.20 | 18.73 | 12.53 | 3.63 | 5.35 | 1.72 | 2.79 | .96 | .64 | 1.31 | 1.40 | 1.50 |
| 22 | 2.40 | 17.02 | 9.82 | 3.52 | 4.80 | 1.62 | 2.39 | .96 | .63 | 1.31 | 1.30 | 1.90 |
| 23 | 2.50 | 17.32 | 8.02 | 3.32 | 4.40 | 1.52 | 1.59 | .86 | .73 | 1.31 | 1.20 | 3.00 |
| 24 | 2.50 | 15.32 | 6.82 | 3.12 | 3.74 | 1.42 | 1.29 | .86 | .83 | 1.11 | 1.10 | 3.00 |
| 25 | 2.40 | 14.21 | 5.41 | 3.21 | 3.44 | 1.42 | 3.59 | .96 | .83 | 1.01 | 1.00 | 2.20 |
| 26 | 3.10 | 15.51 | 5.21 | 3.41 | 2.84 | 1.31 | 6.59 | .96 | 1.43 | .80 | 1.00 | 1.90 |
| 27 | 3.10 | 15.20 | 5.11 | 4.21 | 2.44 | 1.31 | 10.19 | .96 | 1.67 | .70 | .90 | 1.40 |
| 28 | 3.00 | 14.00 | 5.60 | 4.70 | 2.14 | 1.31 | 7.71 | .96 | 2.53 | .70 | .80 | 1.20 |
| 29 | 2.30 | ------- | 6.50 | 5.50 | 1.94 | 1.21 | 5.68 | .86 | 2.87 | .80 | .70 | 1.20 |
| 30 | 2.40 | ------- | 6.90 | 1.95 | 3.04 | 1.21 | 6.58 | .96 | 1.53 | .80 | .70 | 1.20 |
| 31 | 2.40 | ------- | 7.60 | ------- | 5.04 | ------- | 8.28 | .95 | ------- | 10.70 | ------ | 1.30 |
| 1900. | | | | | | | | | | | | |
| 1 | 1.4 | 1.8 | 8.7 | 3.8 | 6.3 | 1.5 | 4.7 | 2.0 | 1.8 | 0.7 | 0.1 | 1.0 |
| 2 | 1.9 | 1.7 | 12.5 | 3.6 | 5.8 | 1.5 | 3.2 | 1.8 | 1.5 | .7 | .2 | .9 |
| 3 | 2.1 | 1.5 | 12.8 | 3.5 | 4.6 | 1.4 | 2.0 | 1.6 | 1.0 | .7 | 1.4 | 1.0 |
| 4 | 1.5 | 2.0 | 13.1 | 3.5 | 3.8 | 1.3 | 1.8 | 1.3 | 0.8 | .6 | 2.4 | 1.4 |
| 5 | 1.4 | 2.5 | 8.4 | 3.4 | 3.2 | 1.2 | 1.5 | 1.2 | .7 | .5 | 4.2 | 4.3 |
| 6 | 1.2 | 3.1 | 7.0 | 3.4 | 3.1 | 1.2 | 1.4 | 1.0 | .6 | .4 | 6.0 | 7.1 |
| 7 | 1.0 | 3.0 | 6.4 | 3.3 | 2.8 | 1.3 | 1.3 | .9 | .6 | .3 | 3.1 | 5.2 |
| 8 | 1.1 | 3.0 | 7.2 | 3.3 | 2.5 | 1.4 | 1.3 | .9 | .5 | .3 | 2.3 | 3.1 |
| 9 | 2.1 | 3.3 | 8.4 | 3.2 | 3.4 | 1.6 | 1.2 | .8 | .5 | .3 | 1.7 | 2.6 |
| 10 | 3.0 | 3.3 | 9.6 | 3.0 | 4.0 | 1.7 | 1.1 | .7 | .4 | .4 | 1.5 | 2.0 |
| 11 | 5.9 | 7.6 | 9.0 | 5.3 | 3.0 | 1.6 | 1.0 | .6 | .4 | .5 | 1.4 | 1.8 |
| 12 | 9.7 | 9.8 | 8.4 | 7.8 | 2.2 | 1.5 | .8 | .6 | .4 | .6 | 1.4 | 1.7 |
| 13 | 10.5 | 14.6 | 7.0 | 11.2 | 2.1 | 1.4 | 1.0 | .5 | .4 | .7 | 1.3 | 1.6 |
| 14 | 11.2 | 17.0 | 5.6 | 8.1 | 2.0 | 1.4 | 1.4 | .5 | .4 | .7 | 1.2 | 1.2 |
| 15 | 9.6 | 17.8 | 4.0 | 4.5 | 1.8 | 1.3 | 1.2 | .4 | 1.5 | .7 | 1.2 | 2.0 |
| 16 | 7.7 | 17.0 | 7.8 | 5.9 | 1.7 | 1.7 | 1.1 | .8 | 5.5 | .8 | 1.1 | 1.6 |
| 17 | 3.5 | 16.0 | 10.0 | 8.2 | 1.8 | 1.8 | 1.0 | 2.0 | 3.8 | .8 | 1.0 | 1.5 |
| 18 | 3.2 | 12.4 | 8.7 | 10.4 | 3.0 | 1.8 | .9 | 2.4 | 2.1 | .7 | .9 | 1.3 |
| 19 | 2.8 | 8.6 | 6.9 | 11.0 | 8.0 | 2.0 | .8 | 1.0 | 1.0 | .6 | .9 | 1.2 |
| 20 | 4.2 | 4.0 | 5.1 | 12.3 | 7.2 | 2.1 | .7 | .8 | .9 | .5 | .9 | 1.0 |
| 21 | 6.5 | 5.0 | 4.8 | 14.5 | 5.6 | 1.7 | .6 | .6 | .8 | .4 | .8 | 2.2 |
| 22 | 5.5 | 6.4 | 4.3 | 17.2 | 3.4 | 2.3 | .8 | .6 | .7 | .4 | .8 | 3.4 |
| 23 | 4.2 | 8.5 | 3.0 | 18.2 | 2.0 | 4.6 | 1.8 | .6 | .7 | .4 | .8 | 5.2 |
| 24 | 3.5 | 12.1 | 3.7 | 17.0 | 2.5 | 5.1 | 3.6 | .7 | .7 | .5 | .8 | 3.8 |
| 25 | 3.3 | 10.2 | 3.7 | 13.8 | 3.3 | 6.1 | 5.3 | .6 | .7 | .5 | 1.0 | 2.7 |
| 26 | 3.1 | 8.6 | 4.7 | 8.5 | 2.8 | 5.7 | 8.4 | .7 | .7 | .3 | 2.0 | 2.2 |
| 27 | 2.8 | 6.8 | 4.9 | 4.7 | 2.5 | 4.3 | 12.0 | .7 | .7 | .2 | 4.5 | 1.8 |
| 28 | 2.8 | 5.1 | 4.7 | 3.8 | 2.2 | 3.2 | 7.8 | .6 | .7 | .1 | 3.2 | 1.6 |
| 29 | 2.2 | ------- | 4.5 | 3.4 | 2.0 | 2.7 | 4.2 | 1.1 | .7 | .1 | 2.1 | 1.0 |
| 30 | 2.0 | ------- | 4.3 | 3.3 | 1.9 | 3.7 | 2.9 | 4.0 | .7 | .1 | 1.6 | 2.0 |
| 31 | 1.9 | ------- | 4.0 | ------- | 1.7 | ------- | 2.6 | 2.3 | ------- | .1 | ------ | 4.3 |

RATING TABLE FOR NEUSE RIVER AT SELMA, N. C., FOR 1896, 1897 AND 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1896. | | | | | | | |
| 0.00 | 125 | 2.80 | 700 | 5.60 | 1,515 | 8.40 | 2,590 |
| 0.20 | 155 | 3.00 | 750 | 5.80 | 1,580 | 8.60 | 2,695 |
| 0.40 | 185 | 3.20 | 800 | 6.00 | 1,650 | 8.80 | 2,805 |
| 0.60 | 220 | 3.40 | 850 | 6.20 | 1,720 | 9.00 | 2,920 |
| 0.80 | 260 | 3.60 | 900 | 6.40 | 1,790 | 9.20 | 3,040 |
| 1.00 | 300 | 3.80 | 960 | 6.60 | 1,860 | 9.40 | 3,160 |
| 1.20 | 340 | 4.00 | 1,020 | 6.80 | 1,930 | 9.60 | 3,280 |
| 1.40 | 380 | 4.20 | 1,080 | 7.00 | 2,000 | 9.80 | 3,400 |
| 1.60 | 420 | 4.40 | 1,140 | 7.20 | 2,080 | 10.00 | 3,540 |
| 1.80 | 460 | 4.60 | 1,200 | 7.40 | 2,160 | 10.20 | 3,690 |
| 2.00 | 500 | 4.80 | 1,260 | 7.60 | 2,240 | 10.40 | 3,855 |
| 2.20 | 550 | 5.00 | 1,325 | 7.80 | 2,320 | 10.60 | 4,050 |
| 2.40 | 600 | 5.20 | 1,390 | 8.00 | 2,400 | 10.80 | 4,230 |
| 2.60 | 650 | 5.40 | 1,450 | 8.20 | 2,490 | 11.00 | 4,410 |
| 1897. | | | | | | | |
| —0.5 | 70 | 2.2 | 698 | 5.6 | 1,700 | 10.5 | 3,950 |
| —0.4 | 75 | 2.4 | 754 | 5.8 | 1,760 | 11.0 | 4,260 |
| —0.3 | 92 | 2.6 | 810 | 6.0 | 1,830 | 11.5 | 4,570 |
| —0.2 | 110 | 2.8 | 866 | 6.2 | 1,900 | 12.0 | 4,880 |
| —0.1 | 127 | 3.0 | 922 | 6.4 | 1,970 | 12.5 | 5,190 |
| 0.0 | 145 | 3.2 | 980 | 6.6 | 2,040 | 13.0 | 5,500 |
| 0.1 | 165 | 3.4 | 1,040 | 6.8 | 2,110 | 13.5 | 5,810 |
| 0.2 | 185 | 3.6 | 1,100 | 7.0 | 2,190 | 14.0 | 6,120 |
| 0.4 | 230 | 3.8 | 1,160 | 7.2 | 2,270 | 14.5 | 6,430 |
| 0.6 | 275 | 4.0 | 1,220 | 7.4 | 2,350 | 15.0 | 6,740 |
| 0.8 | 325 | 4.2 | 1,280 | 7.6 | 2,430 | 15.5 | 7,050 |
| 1.0 | 375 | 4.4 | 1,340 | 7.8 | 2,510 | 16.0 | 7,360 |
| 1.2 | 425 | 4.6 | 1,400 | 8.0 | 2,590 | 16.5 | 7,670 |
| 1.4 | 475 | 4.8 | 1,460 | 8.5 | 2,825 | 17.0 | 7,980 |
| 1.6 | 530 | 5.0 | 1,520 | 9.0 | 3,075 | ---- | ----- |
| 1.8 | 586 | 5.2 | 1,580 | 9.5 | 3,355 | ---- | ----- |
| 2.0 | 642 | 5.4 | 1,640 | 10.0 | 3,650 | ---- | ----- |
| 1898. | | | | | | | |
| 0.0 | 145 | 2.3 | 732 | 5.2 | 2,066 | 9.8 | 4,590 |
| 0.1 | 165 | 2.4 | 762 | 5.4 | 2,172 | 10.0 | 4,700 |
| 0.2 | 185 | 2.5 | 792 | 5.6 | 2,280 | 10.2 | 4,810 |
| 0.3 | 207 | 2.6 | 822 | 5.8 | 2,390 | 10.4 | 4,920 |
| 0.4 | 230 | 2.7 | 855 | 6.0 | 2,500 | 10.6 | 5,030 |
| 0.5 | 252 | 2.8 | 890 | 6.2 | 2,610 | 10.8 | 5,140 |
| 0.6 | 275 | 2.9 | 930 | 6.4 | 2,720 | 11.0 | 5,250 |
| 0.7 | 300 | 3.0 | 972 | 6.6 | 2,830 | 11.2 | 5,360 |
| 0.8 | 325 | 3.1 | 1,017 | 6.8 | 2,940 | 11.4 | 5,470 |
| 0.9 | 350 | 3.2 | 1,062 | 7.0 | 3,050 | 11.6 | 5,580 |
| 1.0 | 375 | 3.3 | 1,110 | 7.2 | 3,160 | 11.8 | 5,690 |
| 1.1 | 400 | 3.4 | 1,160 | 7.4 | 3,270 | 12.0 | 5,800 |
| 1.2 | 425 | 3.5 | 1,210 | 7.6 | 3,380 | 12.5 | 6,075 |
| 1.3 | 450 | 3.6 | 1,260 | 7.8 | 3,490 | 13.0 | 6,350 |
| 1.4 | 475 | 3.7 | 1,310 | 8.0 | 3,600 | 13.5 | 6,625 |
| 1.5 | 502 | 3.8 | 1,360 | 8.2 | 3,710 | 14.0 | 6,900 |
| 1.6 | 530 | 3.9 | 1,410 | 8.4 | 3,820 | 14.5 | 7,175 |
| 1.7 | 558 | 4.0 | 1,460 | 8.6 | 3,930 | 15.0 | 7,450 |
| 1.8 | 586 | 4.2 | 1,560 | 8.8 | 4,040 | 15.5 | 7,725 |
| 1.9 | 614 | 4.4 | 1,660 | 9.0 | 4,150 | 16.0 | 8,000 |
| 2.0 | 642 | 4.6 | 1,760 | 9.2 | 4,260 | ---- | ----- |
| 2.1 | 672 | 4.8 | 1,860 | 9.4 | 4,370 | ---- | ----- |
| 2.2 | 702 | 5.0 | 1,960 | 9.6 | 4,480 | ---- | ----- |

RATING TABLE FOR NEUSE RIVER AT SELMA, N. C., FOR 1899-1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1899. | | | | | | | |
| 0.2 | 145 | 2.8 | 700 | 6.0 | 1,805 | 12.5 | 5,320 |
| 0.4 | 175 | 3.0 | 750 | 6.5 | 2,030 | 13.0 | 5,695 |
| 0.6 | 215 | 3.2 | 800 | 7.0 | 2,255 | 13.5 | 6,070 |
| 0.8 | 255 | 3.4 | 860 | 7.5 | 2,500 | 14.0 | 6,450 |
| 1.0 | 295 | 3.6 | 920 | 8.0 | 2,750 | 14.5 | 6,850 |
| 1.2 | 335 | 3.8 | 980 | 8.5 | 3,000 | 15.0 | 7,250 |
| 1.4 | 377 | 4.0 | 1,040 | 9.0 | 3,250 | 16.0 | 8,050 |
| 1.6 | 419 | 4.2 | 1,100 | 9.5 | 3,500 | 17.0 | 8,850 |
| 1.8 | 462 | 4.4 | 1,168 | 10.0 | 3,750 | 18.0 | 9,650 |
| 2.0 | 506 | 4.6 | 1,236 | 10.5 | 4,000 | 19.0 | 10,450 |
| 2.2 | 551 | 4.8 | 1,305 | 11.0 | 4,280 | 20.0 | 11,250 |
| 2.4 | 600 | 5.0 | 1,385 | 11.5 | 4,610 | ---- | ------- |
| 2.6 | 650 | 5.5 | 1,585 | 12.0 | 4,960 | ---- | ------ |
| 1900. | | | | | | | |
| 0.2 | 150 | 2.8 | 714 | 6.0 | 1,780 | 12.5 | 5,325 |
| 0.4 | 184 | 3.0 | 770 | 6.5 | 1,980 | 13.0 | 2,700 |
| 0.6 | 218 | 3.2 | 830 | 7.0 | 2,190 | 13.5 | 6,075 |
| 0.8 | 252 | 3.4 | 890 | 7.5 | 2,415 | 14.0 | 6,465 |
| 1.0 | 290 | 3.6 | 951 | 8.0 | 2,645 | 14.5 | 6,855 |
| 1.2 | 330 | 3.8 | 1,013 | 8.5 | 2,895 | 15.0 | 7,250 |
| 1.4 | 370 | 4.0 | 1,075 | 9.0 | 3,160 | 16.0 | 8,050 |
| 1.6 | 413 | 4.2 | 1,141 | 9.5 | 3,435 | 17.0 | 8,880 |
| 1.8 | 459 | 4.4 | 1,207 | 10.0 | 3,710 | 18.0 | 9,710 |
| 2.0 | 505 | 4.6 | 1,274 | 10.5 | 4,000 | 19.0 | 10,540 |
| 2.2 | 555 | 4.8 | 1,342 | 11.0 | 4,305 | 20.0 | 11,370 |
| 2.4 | 605 | 5.0 | 1,410 | 11.5 | 4,630 | ---- | ------ |
| 2.6 | 658 | 5.5 | 1,590 | 12.0 | 4,965 | ---- | ------ |

ESTIMATED MONTHLY DISCHARGE OF NEUSE RIVER AT SELMA, N. C.

[Drainage area, 1,175 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| August | 1,480 | 170 | 443 | 27,239 | 0.44 | 0.38 |
| September | 1,337 | 125 | 213 | 12,674 | 0.20 | 0.18 |
| October | 2,080 | 140 | 315 | 19,369 | 0.31 | 0.27 |
| November | 1,260 | 185 | 321 | 19,101 | 0.30 | 0.27 |
| December | 2,920 | 340 | 874 | 53,741 | 0.85 | 0.74 |
| 1897. | | | | | | |
| January | 3,243 | 400 | 846 | 52,020 | 0.83 | 0.72 |
| February | 5,624 | 558 | 2,302 | 127,846 | 2.04 | 1.96 |
| March | 7,856 | 810 | 2,903 | 178,500 | 2.85 | 2.47 |
| April | 6,430 | 586 | 811 | 48,258 | 0.77 | 0.69 |
| May | 3,414 | 475 | 920 | 56,570 | 0.90 | 0.78 |
| June | 1,830 | 252 | 570 | 33,920 | 0.54 | 0.48 |
| July | 1,700 | 230 | 658 | 40,460 | 0.64 | 0.56 |
| August | 586 | 165 | 232 | 14,265 | 0.23 | 0.20 |
| September | 185 | 92 | 145 | 8,627 | 0.13 | 0.12 |
| October | 230 | 75 | 126 | 7,747 | 0.13 | 0.11 |
| November | 726 | 145 | 265 | 15,768 | 0.26 | 0.23 |
| December | 1,830 | 375 | 795 | 48,882 | 0.78 | 0.68 |
| The year | 7,856 | 75 | 881 | 632,863 | 10.10 | 0.75 |

ESTIMATED MONTHLY DISCHARGE OF NEUSE RIVER AT SELMA, N. C.—*Continued.*
[Drainage area, 1,175 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1898. | | | | | | |
| January | 3,050 | 350 | 661 | 40,644 | 0.64 | 0.56 |
| February | 792 | 325 | 430 | 23,881 | 0.39 | 0.37 |
| March | 4,150 | 375 | 1,132 | 69,604 | 1.10 | 0.96 |
| April | 5,490 | 400 | 1,614 | 96,039 | 1.53 | 1.37 |
| May | 5,250 | 275 | 1,798 | 110,555 | 1.76 | 1.53 |
| June | 1,960 | 230 | 555 | 33,025 | 0.53 | 0.47 |
| July | 3,050 | 252 | 927 | 56,999 | 0.91 | 0.79 |
| August | 4,920 | 252 | 1,310 | 80,549 | 1.28 | 1.11 |
| September | 6,350 | 325 | 1,379 | 82,056 | 1.31 | 1.17 |
| October | 732 | 185 | 424 | 26,071 | 0.41 | 0.36 |
| November | 2,390 | 425 | 857 | 50,995 | 0 81 | 0.73 |
| December | 5,470 | 475 | 1,300 | 79,934 | 1.28 | 1.11 |
| 1899. | | | | | | |
| January | 3,200 | 356 | 1,107 | 68,067 | 1.08 | 0.94 |
| February | 12,050 | 1,625 | 6,754 | 375,098 | 5.98 | 5.74 |
| March | 9,890 | 1,425 | 5,386 | 331,792 | 5.28 | 4.58 |
| April | 8,570 | 495 | 2,078 | 123,650 | 1.96 | 1.76 |
| May | 1,760 | 440 | 948 | 58,290 | 0.93 | 0.81 |
| June | 3,625 | 335 | 868 | 51,650 | 0.81 | 0.73 |
| July | 3,850 | 295 | 948 | 58,290 | 0.93 | 0.81 |
| August | 4,100 | 265 | 843 | 51,834 | 0.83 | 0.72 |
| September | 712 | 185 | 289 | 17,197 | 0.28 | 0.25 |
| October | 4,100 | 195 | 721 | 44,333 | 0.68 | 0.61 |
| November | 4,540 | 235 | 964 | 57,362 | 0.91 | 0.82 |
| December | 980 | 295 | 436 | 26,809 | 0.43 | 0.37 |
| 1900. | | | | | | |
| January | 4,435 | 290 | 2,002 | 123,098 | 1.96 | 1.70 |
| February | 9,544 | 390 | 3,061 | 169,999 | 2.72 | 2.61 |
| March | 5,775 | 770 | 2,314 | 142,282 | 2 27 | 1.97 |
| April | 9,876 | 770 | 2,906 | 172,919 | 2.75 | 2.47 |
| May | 2,645 | 436 | 906 | 55,708 | 0.89 | 0.77 |
| June | 1,820 | 330 | 630 | 37,488 | 0.60 | 0.54 |
| July | 4,965 | 218 | 787 | 48,391 | 0.77 | 0.67 |
| August | 1,075 | 184 | 325 | 19,983 | 0.32 | 0.28 |
| September | 1,590 | 184 | 328 | 19,517 | 0.31 | 0 28 |
| October | 252 | 135 | 196 | 12,052 | 0.20 | 0.17 |
| November | 1,780 | 135 | 479 | 28,502 | 0.46 | 0.41 |
| December | 2,235 | 271 | 646 | 39,721 | 0.63 | 0.55 |

# CAPE FEAR RIVER DRAINAGE BASIN.

## DESCRIPTION OF BASIN.

Cape Fear River is formed by the junction, near Moncure, in Chatham County, N. C., of Haw and Deep rivers, which rise among the red clay hills of Guilford and Rockingham counties, N. C. Haw River is the more northerly of the two branches, and flows at first slightly toward the northeast, but turning soon to the southeast, drains the southern portion of Rockingham County and the greater part of Guilford, and passes thence through Alamance, a corner of Orange, and Chatham County to its junction with the Deep River in the lower part of Chatham. Deep River flows at first toward the south, but soon turns to the southeast and flows practically parallel with Haw River for many miles through Guilford and Randolph counties, and into Moore County, where it turns abruptly toward the east, flowing in this direction through Moore and Chatham counties to the junction with the Haw.

The area drained by the entire river system above the town of Fayetteville, N. C., the head of navigation on the river, is 4,493 square miles, of which Haw River drains 1,800, Deep River 1,400, and Cape Fear River below the junction 1,293 square miles.

The elevations of the divides between the drainage basin of the Cape Fear system and those of the adjacent streams are not very great, and the minor tributaries can not therefore furnish much power except in places where considerable storage may be obtained by the construction of suitable dams.

## MEASUREMENTS OF STREAM FLOW.

### CAPE FEAR RIVER NEAR FAYETTEVILLE, N. C.

This gaging station is at the bridge of the Atlantic Coast Line, about a mile east of Fayetteville, N. C. The Weather Bureau has a gage fastened on the lower side of the east abutment of the covered highway bridge, this being about 400 feet above the railroad bridge, from which discharge measurements are made. The lower 29 feet of this gage consists of a rod divided into feet and tenths and firmly fastened to the abutment. Above the 29-foot mark the scale is painted on the rock. The observer was Frank Glover, who has charge of the steamboat landing just below the railroad bridge. The channel is straight and the current moderately swift and not influenced by dams or other obstructions. The banks are high and the total flow of the river is in one channel, even during the highest floods. The bed is fairly constant. There is a difference in elevation of 50 feet between high and low water at this point. The station was abandoned May 31, 1903.

DISCHARGE MEASUREMENTS OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1895. | | | |
| Sept. 26 | C. C. Babb | 1.59 | 498 |
| Dec. 7 | ----do | 2.90 | 1,109 |
| 1896. | | | |
| Apr. 5 | E. W. Myers | 19.30 | 10,525 |
| Apr. 25 | ----do | 4.00 | 1,618 |
| May 22 | ----do | 4.00 | 1,322 |
| June 8 | ----do | 10.00 | 5,041 |
| June 8 | ----do | 9.20 | 4,207 |
| July 11 | ----do | 49.10 | 51,115 |
| Sept. 2 | ----do | 1.10 | 519 |
| Sept. 19 | A. P. Davis | 1.88 | 770 |
| 1897. | | | |
| Mar. 12 | E. W. Myers | 23.00 | 16,777 |
| July 27 | ----do | 7.00 | 2,682 |
| Sept. 30 | ----do | .70 | 424 |
| 1898. | | | |
| Jan. 10 | E. W. Myers | 3.55 | 1,303 |
| Aug. 22 | ----do | 28.35 | 23,215 |
| 1899. | | | |
| Feb. 7 | E. W. Myers | 46.50 | 61,921 |
| May 24 | ----do | 6.40 | 3,142 |
| June 6 | ----do | 4.20 | 1,577 |
| Oct. 13 | ----do | 6.00 | 2,132 |
| Nov. 29 | ----do | 9.65 | 7,742 |
| 1900. | | | |
| Feb. 9 | E. W. Myers | 6.90 | 3,748 |
| Apr. 12 | ----do | 6.10 | 2,686 |
| Apr. 25 | ----do | 25.30 | 13,479 |
| May 17 | ----do | 3.80 | 1,596 |
| June 29 | ----do | 5.80 | 2,331 |
| Aug. 11 | ----do | .70 | 415 |
| Nov. 3 | ----do | .75 | 416 |
| 1901. | | | |
| Apr. 5 | E. Graves | 47.60 | 46,519 |
| July 15 | E. W. Myers | 40.30 | 38,300 |
| Nov. 29 | J. S. Henderson | 4.50 | 1,783 |
| 1902. | | | |
| May 8 | J. S. Henderson | 4.50 | 2,111 |
| July 12 | B. S. Drane | 2.50 | 1,120 |
| Aug. 19 | ----do | 2.70 | 1,178 |
| Sept. 5 | ----do | .50 | 446 |
| Oct. 16 | ----do | 5.13 | 2,487 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1889-1890.

| 1889. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 10.00 | 18.00 | 15.00 | 8.70 | 12.00 | 10.00 | 40.60 | 33.50 | 14.00 | 5.50 | 8.50 | 14.00 |
| 2 | 11.00 | 15.00 | 13.00 | 8.40 | 10.00 | 40.00 | 42.60 | 44.20 | 13.10 | 6.00 | 7.40 | 10.20 |
| 3 | 10.00 | 13.00 | 11.00 | 8.10 | 8.50 | 30.00 | 43.90 | 37.50 | 9.20 | 5.60 | 6.90 | 8.10 |
| 4 | 9.00 | 12.20 | 9.00 | 7.80 | 7.50 | 22.00 | 41.40 | 28.00 | 8.60 | 5.20 | 6.80 | 7.50 |
| 5 | 25.00 | 10.70 | 7.20 | 7.50 | 7.00 | 15.00 | 37.40 | 33.50 | 8.10 | 4.50 | 7.20 | 7.20 |
| 6 | 38.00 | 10.40 | 5.80 | 7.20 | 6.60 | 9.50 | 33.00 | 38.00 | 7.50 | 4.40 | 7.40 | 7.10 |
| 7 | 35.00 | 10.20 | 5.70 | 6.90 | 6.30 | 8.00 | 28.40 | 37.00 | 7.10 | 4.20 | 6.90 | 7.00 |
| 8 | 31.00 | 10.10 | 5.60 | 6.60 | 6.20 | 6.80 | 20.00 | 33.00 | 7.50 | 4.60 | 6.80 | 6.80 |
| 9 | 26.00 | 10.00 | 5.50 | 6.30 | 6.10 | 6.00 | 12.00 | 24.00 | 9.50 | 4.70 | 6.60 | 6.70 |
| 10 | 20.00 | 10 00 | 5.40 | 6.00 | 6.00 | 5.00 | 7.00 | 18.00 | 8 30 | 5.00 | 7.80 | 6.40 |
| 11 | 17.00 | 9.80 | 5.30 | 5.80 | 5.80 | 6.00 | 6.80 | 20.00 | 7.80 | 4.00 | 7.90 | 6.30 |
| 12 | 14.00 | 9.60 | 5.30 | 5.60 | 5.50 | 7.00 | 9.00 | 16.00 | 6.80 | 3.80 | 7.50 | 6.00 |
| 13 | 11.00 | 9.50 | 5.20 | 5.40 | 5.00 | 6.50 | 10.40 | 14.00 | 6.30 | 3.70 | 7.20 | 5.80 |
| 14 | 9.00 | 9.40 | 18.00 | 5.30 | 4.50 | 6.00 | 10.00 | 10.10 | 6.10 | 3.50 | 7.60 | 5.70 |
| 15 | 8.00 | 10.00 | 21.00 | 10.00 | 4.00 | 5.80 | 9.50 | 10.00 | 6.00 | 3.40 | 7.90 | 5.60 |
| 16 | 8.00 | 15.00 | 16.00 | 15.00 | 3.80 | 6.00 | 9.00 | 12.00 | 6.50 | 3.30 | 7.20 | 5.40 |
| 17 | 15.00 | 25.00 | 14.00 | 20.00 | 3.50 | 5.70 | 8.20 | 12.20 | 6.90 | 3.20 | 6.90 | 5.00 |
| 18 | 30.00 | 34.50 | 10.00 | 18.00 | 3.40 | 6.00 | 7.50 | 10.00 | 7.30 | 3.20 | 8.20 | 4.90 |
| 19 | 28.00 | 40.00 | 13.00 | 16.00 | 3.30 | 7.00 | 15.40 | 7.50 | 7.00 | 3.20 | 9.50 | 4.70 |
| 20 | 30.00 | 43.00 | 12.00 | 12.00 | 3.20 | 8.50 | 11.00 | 6.90 | 6.90 | 3.10 | 10.20 | 4.60 |
| 21 | 35.00 | 42.00 | 11.70 | 9.00 | 3.20 | 8.00 | 9.00 | 6.40 | 6.00 | 3.10 | 16.20 | 4.40 |
| 22 | 30.00 | 38.00 | 11.50 | 7.00 | 3.20 | 7.50 | 8.50 | 6.20 | 6.00 | 3.10 | 19.90 | 4.40 |
| 23 | 25.00 | 34.00 | 11.30 | 6.00 | 3.10 | 8.00 | 8.20 | 6.00 | 5.80 | 3.00 | 24.00 | 4.40 |
| 24 | 20.00 | 36.00 | 11.00 | 5.00 | 3.10 | 7.50 | 8.00 | 6.50 | 5.70 | 3.00 | 29.00 | 4.30 |
| 25 | 16.00 | 31.00 | 10.80 | 5.50 | 3.00 | 7.00 | 9.00 | 7.00 | 5.60 | 4.00 | 32.00 | 4.30 |
| 26 | 22.00 | 25.00 | 10.60 | 12.00 | 3.00 | 6.00 | 20.00 | 8.00 | 5.50 | 5.50 | 27.20 | 4.30 |
| 27 | 38.00 | 20.00 | 10.20 | 18.00 | 2.90 | 5.00 | 33.50 | 11.00 | 10.00 | 13.00 | 19.10 | 4.20 |
| 28 | 34.00 | 17.00 | 10.00 | 20.00 | 2.90 | 5.50 | 43.00 | 21.00 | 9.00 | 21.50 | 21.00 | 4.20 |
| 29 | 27.00 | ------- | 9.80 | 18.00 | 2.80 | 10.00 | 45.00 | 31.00 | 8.40 | 25.00 | 20.20 | 4.20 |
| 30 | 23.00 | ------- | 9.40 | 15.00 | 2.80 | 38.00 | 43.00 | 28.00 | 7.90 | 20.00 | 17.00 | 4.10 |
| 31 | 19.00 | ------- | 9.00 | ------- | 3.60 | ------- | 38.70 | 22.00 | ------- | 15.00 | ------ | 4.80 |
| 1890. | | | | | | | | | | | | |
| 1 | 7.20 | 4.60 | 22.00 | 7.70 | 6.00 | 6.40 | 2.90 | 1.10 | 16.50 | 8.00 | 7.80 | 5.80 |
| 2 | 7.50 | 4.80 | 23.10 | 7.60 | 5.80 | 6.00 | 2.80 | 1.60 | 13.40 | 7.60 | 7.60 | 5.90 |
| 3 | 7.40 | 5.00 | 20.00 | 7.80 | 5.70 | 5.50 | 3.10 | 4.20 | 10.20 | 7.00 | 7.40 | 6.40 |
| 4 | 7.00 | 5.70 | 17.40 | 8.00 | 7.60 | 4.00 | 4.50 | 5.10 | 7.10 | 6.50 | 7.00 | 5.10 |
| 5 | 6.50 | 5.90 | 16.20 | 7.80 | 9.40 | 3.60 | 6.20 | 4.90 | 5.20 | 6.20 | 8.40 | 4.90 |
| 6 | 6.20 | 6.20 | 11.40 | 7.70 | 12.00 | 3.10 | 5.70 | 4.80 | 4.80 | 6.00 | 9.20 | 4.70 |
| 7 | 5.80 | 7.50 | 9.30 | 7.60 | 14.60 | 2.90 | 5.00 | 5.60 | 4.60 | 5.80 | 9.00 | 4.60 |
| 8 | 5.70 | 8.20 | 9.10 | 7.50 | 12.00 | 3.90 | 4.70 | 10.20 | 4.50 | 5.60 | 8.40 | 4.80 |
| 9 | 5.40 | 10.00 | 9.00 | 7.40 | 10.10 | 6.70 | 3.90 | 14.40 | 4.20 | 5.20 | 8.00 | 5.20 |
| 10 | 5.00 | 14.80 | 8.80 | 7.30 | 9.20 | 10.00 | 2.80 | 18.10 | 4.00 | 4.00 | 7.80 | 6.70 |
| 11 | 4.90 | 12.20 | 8.60 | 7.20 | 8.90 | 11.00 | 2.60 | 22.00 | 5.90 | 3.90 | 7.70 | 6.40 |
| 12 | 4.80 | 11.00 | 8.20 | 7.80 | 8.70 | 9.80 | 2.30 | 24.50 | 6.20 | 3.80 | 7.50 | 6.00 |
| 13 | 4.70 | 10.20 | 7.40 | 8.20 | 8.50 | 8.60 | 1.90 | 20.10 | 6.00 | 3.50 | 8.40 | 5.80 |
| 14 | 4.60 | 10.00 | 7.20 | 8.30 | 8.20 | 7.40 | 1.60 | 15.20 | 7.10 | 4.00 | 8.90 | 5.60 |
| 15 | 4.50 | 9.20 | 8.40 | 8.00 | 7.90 | 6.80 | 1.40 | 10.60 | 14.80 | 3.80 | 8.70 | 5.10 |
| 16 | 4.30 | 10.40 | 12.20 | 7.80 | 7.80 | 6.40 | 1.20 | 8.40 | 27.90 | 3.70 | 8.50 | 5.00 |
| 17 | 4.20 | 11.20 | 14.10 | 8.40 | 7.60 | 6.20 | 2.20 | 8.20 | 30.20 | 4.80 | 8.40 | 4.90 |
| 18 | 4.00 | 10.10 | 12.20 | 10.20 | 7.50 | 6.80 | 2.50 | 9.40 | 21.40 | 5.90 | 8.00 | 6.20 |
| 19 | 4.00 | 9.00 | 10.10 | 12.00 | 7.00 | 6.70 | 2.80 | 13.50 | 16.20 | 13.40 | 7.80 | 10.10 |
| 20 | 4.20 | 8.20 | 8.90 | 14.50 | 6.70 | 6.60 | 2.90 | 17.60 | 11.00 | 15.00 | 7.40 | 20.20 |
| 21 | 4.20 | 7.80 | 10.20 | 12.40 | 6.00 | 6.40 | 2.70 | 21.40 | 8.00 | 11.20 | 7.00 | 18.00 |
| 22 | 4.20 | 7.50 | 12.10 | 10.20 | 5.70 | 6.00 | 2.60 | 20.10 | 6.10 | 8.90 | 6.50 | 14.10 |
| 23 | 4.10 | 8.60 | 14.40 | 9.10 | 4.00 | 5.50 | 5.20 | 17.20 | 5.20 | 8.00 | 6.10 | 12.20 |
| 24 | 4.20 | 11.00 | 16.80 | 8.80 | 3.70 | 5.10 | 7.10 | 15.10 | 4.90 | 10.20 | 5.70 | 10.10 |
| 25 | 4.20 | 12.00 | 23.20 | 8.50 | 3.50 | 4.80 | 10.20 | 18.40 | 4.80 | 12.40 | 5.00 | 9.80 |
| 26 | 4.10 | 14.20 | 20.00 | 8.20 | 5.40 | 4.70 | 9.10 | 18.00 | 5.20 | 22.80 | 4.70 | 12.40 |
| 27 | 4.10 | 19.00 | 16.40 | 7.90 | 9.20 | 4.10 | 8.20 | 13.20 | 6.80 | 18.10 | 4.50 | 18.20 |
| 28 | 4.20 | 20.00 | 12.10 | 7.40 | 12.40 | 3.80 | 12.40 | 10.40 | 7.20 | 12.40 | 4.20 | 14.10 |
| 29 | 4.20 | ------- | 10.20 | 6.80 | 9.80 | 3.40 | 15.10 | 10.10 | 8.10 | 10.20 | 5.10 | 12.00 |
| 30 | 4.20 | ------- | 8.10 | 6.20 | 7.20 | 3.00 | 18.20 | 8.40 | 8.40 | 8.40 | 5.20 | 10.20 |
| 31 | 4.20 | ------- | 7.80 | ------- | 6.80 | ------- | 20.00 | 10.20 | ------- | 8.00 | ------ | 9.40 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1891-1892.

| 1891. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.00 | 12.40 | 10.20 | 16.40 | 6.20 | 31.40 | 4.70 | 10.50 | 26.10 | 4.50 | 3.50 | 13.10 |
| 2 | 8.50 | 15.60 | 12.40 | 14.10 | 6.00 | 22.00 | 5.30 | 19.10 | 17.20 | 4.40 | 3.80 | 12.40 |
| 3 | 8.00 | 14.20 | 14.00 | 17.20 | 5.80 | 16.20 | 6.40 | 31.40 | 14.40 | 5.20 | 3.70 | 10.00 |
| 4 | 7.70 | 13.10 | 16.20 | 19.10 | 5.40 | 10.20 | 6.00 | 29.20 | 13.70 | 5.30 | 3.60 | 8.10 |
| 5 | 7.20 | 12.00 | 19.10 | 20.00 | 5.00 | 9.50 | 5.10 | 25.00 | 12.80 | 4.90 | 3.50 | 7.30 |
| 6 | 7.00 | 11.40 | 17.40 | 18.00 | 5.80 | 10.40 | 6.40 | 20.60 | 10.10 | 4.80 | 3.90 | 7.00 |
| 7 | 7.40 | 10.00 | 15.20 | 16.40 | 6.40 | 12.20 | 8.20 | 17.00 | 12.40 | 4.60 | 3.80 | 6.80 |
| 8 | 7.80 | 12.40 | 12.10 | 13.60 | 7.00 | 14.50 | 15.10 | 16.10 | 13.60 | 6.20 | 3.40 | 7.40 |
| 9 | 8.00 | 18.20 | 11.20 | 12.20 | 6.80 | 16.20 | 13.20 | 11.20 | 14.80 | 7.80 | 3.20 | 8.00 |
| 10 | 10.20 | 17.00 | 14.40 | 11.00 | 6.40 | 14.30 | 11.70 | 10.10 | 14.00 | 7.20 | 3.60 | 7.70 |
| 11 | 16.40 | 16.10 | 16.10 | 10.10 | 5.50 | 12.00 | 8.20 | 9.00 | 11.80 | 6.80 | 4.20 | 7.50 |
| 12 | 21.20 | 14.20 | 22.10 | 12.40 | 5.00 | 13.40 | 7.10 | 8.40 | 10.20 | 6.60 | 4.70 | 7.30 |
| 13 | 18.00 | 12.10 | 34.20 | 15.70 | 4.70 | 14.50 | 6.40 | 7.20 | 9.10 | 5.90 | 4.40 | 7.00 |
| 14 | 14.10 | 11.00 | 41.00 | 12.00 | 6.80 | 10.20 | 5.20 | 6.90 | 8.40 | 5.70 | 4.00 | 6.80 |
| 15 | 12.20 | 10.20 | 36.20 | 10.20 | 9.40 | 8.10 | 6.10 | 7.00 | 8.00 | 7.10 | 3.80 | 7.90 |
| 16 | 10.10 | 10.00 | 29.40 | 11.40 | 12.20 | 6.50 | 6.80 | 6.20 | 7.60 | 9.20 | 3.60 | 8.60 |
| 17 | 9.40 | 9.50 | 21.00 | 12.00 | 12.00 | 6.20 | 6.00 | 5.30 | 6.90 | 8.00 | 4.10 | 8.40 |
| 18 | 10.20 | 8.10 | 16.60 | 11.20 | 10.20 | 6.80 | 5.80 | 5.10 | 5.40 | 7.70 | 4.90 | 8.00 |
| 19 | 14.20 | 8.00 | 14.40 | 10.10 | 9.40 | 7.40 | 5.60 | 7.20 | 6.00 | 7.20 | 4.80 | 7.80 |
| 20 | 16.40 | 9.20 | 16.80 | 9.40 | 8.10 | 7.90 | 5.20 | 8.40 | 5.20 | 6.80 | 4.70 | 7.40 |
| 21 | 14.10 | 14.10 | 21.70 | 8.20 | 7.60 | 7.00 | 6.10 | 8.00 | 5.00 | 6.40 | 4.40 | 7.00 |
| 22 | 12.20 | 39.20 | 18.90 | 10.70 | 7.00 | 6.50 | 7.70 | 17.90 | 4.90 | 6.00 | 4.00 | 6.80 |
| 23 | 13.10 | 37.40 | 17.10 | 10.90 | 6.50 | 8.20 | 10.40 | 32.40 | 4.70 | 5.50 | 3.80 | 6.70 |
| 24 | 18.40 | 30.10 | 16.20 | 9.10 | 6.10 | 8.00 | 11.10 | 43.10 | 5.00 | 5.00 | 4.20 | 7.80 |
| 25 | 19.60 | 19.20 | 18.40 | 9.00 | 5.20 | 7.20 | 12.90 | 40.20 | 4.90 | 4.80 | 5.10 | 8.00 |
| 26 | 18.00 | 16.00 | 20.00 | 8.70 | 10.40 | 6.90 | 13.00 | 39.00 | 4.80 | 4.20 | 4.40 | 7.40 |
| 27 | 16.20 | 14.40 | 26.40 | 7.10 | 25.90 | 6.00 | 12.50 | 35.20 | 4.90 | 4.00 | 4.70 | 7.10 |
| 28 | 14.10 | 12.00 | 30.00 | 7.00 | 35.70 | 5.40 | 10.10 | 24.60 | 5.10 | 3.80 | 3.90 | 6.80 |
| 29 | 12.40 | ------ | 25.80 | 6.80 | 40.20 | 4.10 | 8.90 | 30.10 | 4.80 | 3.70 | 6.20 | 6.60 |
| 30 | 10.60 | ------ | 20.10 | 6.40 | 45.10 | 4.20 | 8.40 | 31.40 | 4.60 | 3.90 | 10.20 | 7.50 |
| 31 | 10.00 | ------ | 18.20 | ------ | 39.20 | ------ | 9.60 | 32.20 | ------ | 3.60 | ------ | 8.10 |
| 1892. | | | | | | | | | | | | |
| 1 | 8.80 | 9.90 | 26.20 | 8.00 | 7.40 | 7.40 | 12.10 | 5.40 | 5.80 | 2.60 | 1.00 | 2.00 |
| 2 | 7.50 | 9.40 | 21.40 | 7.80 | 7.00 | 8.10 | 14.20 | 5.80 | 5.10 | 2.50 | .90 | 1.80 |
| 3 | 7.00 | 9.00 | 18.10 | 9.40 | 6.80 | 8.40 | 11.60 | 5.50 | 4.20 | 2.30 | .80 | 1.70 |
| 4 | 7.60 | 8.80 | 14.20 | 10.20 | 6.70 | 9.60 | 10.10 | 5.20 | 3.70 | 2.10 | 1.40 | 2.00 |
| 5 | 8.00 | 8.70 | 11.60 | 10.00 | 6.50 | 10.40 | 14.40 | 5.10 | 3.00 | 1.90 | 1.60 | 2.10 |
| 6 | 9.40 | 9.40 | 10.40 | 9.40 | 6.40 | 14.60 | 15.00 | 5.00 | 2.70 | 1.70 | 1.70 | 2.20 |
| 7 | 9.00 | 9.20 | 9.20 | 13.80 | 6.20 | 14.00 | 17.40 | 4.90 | 2.40 | 1.50 | 1.90 | 2.40 |
| 8 | 8.60 | 9.00 | 10.40 | 21.40 | 6.10 | 10.40 | 16.30 | 4.70 | 2.00 | 1.30 | 2.00 | 2.00 |
| 9 | 7.50 | 8.80 | 11.00 | 34.20 | 6.00 | 12.60 | 14.10 | 4.50 | 1.80 | 1.10 | 2.50 | 1.90 |
| 10 | 8.80 | 8.40 | 9.80 | 33.10 | 5.80 | 14.10 | 11.60 | 4.10 | 1.70 | 1.00 | 4.10 | 2.50 |
| 11 | 8.70 | 8.20 | 9.40 | 20.50 | 7.20 | 11.40 | 9.40 | 3.90 | 1.50 | 1.40 | 5.40 | 2.70 |
| 12 | 8.90 | 9.40 | 8.70 | 17.10 | 7.90 | 10.20 | 7.20 | 3.60 | 1.20 | 1.60 | 4.50 | 2.60 |
| 13 | 9.40 | 9.10 | 8.20 | 14.20 | 8.20 | 8.40 | 8.60 | 3.20 | 1.00 | 1.50 | 4.00 | 2.40 |
| 14 | 12.00 | 8.70 | 7.80 | 12.70 | 7.80 | 7.00 | 11.40 | 2.80 | .90 | 1.40 | 3.70 | 2.30 |
| 15 | 13.60 | 8.40 | 7.00 | 12.00 | 7.60 | 6.60 | 12.70 | 2.40 | 2.50 | 1.30 | 3.40 | 2.10 |
| 16 | 18.50 | 7.90 | 6.80 | 15.20 | 7.00 | 6.00 | 13.10 | 1.90 | 5.50 | 1.20 | 3.80 | 2.20 |
| 17 | 22.00 | 7.70 | 8.20 | 13.60 | 7.40 | 5.80 | 17.20 | 1.60 | 3.60 | 1.10 | 7.50 | 2.70 |
| 18 | 30.20 | 7.50 | 10.10 | 12.00 | 7.90 | 4.90 | 14.10 | 1.40 | 2.40 | 1.00 | 8.00 | 3.00 |
| 19 | 29.10 | 7.20 | 9.60 | 10.80 | 7.40 | 5.10 | 10.40 | 1.20 | 1.80 | 1.10 | 7.30 | 3.30 |
| 20 | 37.80 | 8.40 | 9.20 | 11.10 | 6.80 | 7.20 | 7.70 | 1.00 | 1.60 | 1.20 | 6.80 | 9.60 |
| 21 | 49.50 | 8.80 | 8.70 | 10.40 | 7.60 | 9.40 | 6.90 | .90 | 1.80 | 1.10 | 6.30 | 12.00 |
| 22 | 47.20 | 8.00 | 8.10 | 10.00 | 7.90 | 11.20 | 6.70 | .80 | 4.90 | 1.00 | 5.00 | 14.40 |
| 23 | 36.40 | 7.60 | 7.80 | 17.20 | 10.80 | 12.60 | 7.00 | 1.70 | 7.40 | .90 | 4.10 | 13.10 |
| 24 | 28.10 | 7.40 | 7.40 | 19.50 | 14.40 | 10.00 | 6.80 | 2.30 | 6.10 | .80 | 3.50 | 10.70 |
| 25 | 22.30 | 7.00 | 8.80 | 14.10 | 12.00 | 9.40 | 7.20 | 3.80 | 5.30 | .90 | 3.00 | 8.20 |
| 26 | 17.40 | 8.40 | 10.60 | 12.70 | 10.60 | 10.20 | 7.00 | 5.70 | 4.90 | 1.00 | 2.90 | 6.00 |
| 27 | 15.10 | 10.20 | 17.10 | 10.60 | 8.10 | 12.40 | 5.40 | 6.10 | 4.60 | 1.20 | 2.60 | 4.90 |
| 28 | 13.70 | 17.40 | 14.20 | 8.40 | 7.40 | 16.20 | 4.90 | 5.20 | 4.00 | 1.30 | 2.50 | 4.40 |
| 29 | 12.00 | 24.60 | 10.00 | 8.10 | 6.80 | 20.00 | 4.60 | 3.80 | 3.40 | 1.40 | 2.30 | 4.00 |
| 30 | 11.30 | ------ | 9.10 | 7.80 | 6.20 | 18.70 | 4.40 | 4.90 | 2.70 | 1.20 | 2.10 | 3.90 |
| 31 | 10.20 | ------ | 8.20 | ------ | 6.00 | ------ | 4.00 | 4.60 | ------ | 1.10 | ------ | 3.80 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1893-1894.

| 1893. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 19.60 | 12.90 | 5.10 | 4.50 | 7.80 | 3.80 | 1.80 | 22.80 | 6.10 | 7.00 | 9.00 |
| 2 | 12.00 | 14.30 | 20.80 | 4.80 | 5.00 | 5.00 | 5.60 | 3.70 | 27.40 | 5.70 | 6.80 | 7.00 |
| 3 | 20.50 | 10.80 | 17.20 | 4.50 | 7.00 | 6.20 | 4.90 | 6.90 | 32.30 | 5.00 | 6.50 | 6.30 |
| 4 | 16.50 | 8.40 | 14.80 | 4.40 | 15.00 | 8.00 | 4.10 | 7.00 | 30.00 | 5.30 | 6.10 | 5.90 |
| 5 | 13.00 | 7.50 | 13.40 | 4.80 | 31.50 | 6.60 | 4.80 | 6.80 | 20.80 | 5.10 | 6.00 | 15.90 |
| 6 | 10.00 | 6.60 | 12.40 | 6.20 | 29.00 | 6.00 | 5.20 | 10.00 | 14.00 | 9.00 | 5.80 | 15.60 |
| 7 | 8.00 | 6.70 | 11.10 | 6.40 | 19.90 | 7.00 | 4.80 | 7.30 | 8.60 | 8.00 | 5.80 | 15.00 |
| 8 | 6.10 | 9.50 | 10.00 | 5.80 | 17.90 | 14.00 | 3.60 | 6.40 | 6.00 | 6.00 | 5.70 | 15.40 |
| 9 | 5.40 | 11.40 | 9.40 | 5.30 | 14.20 | 23.70 | 2.80 | 4.80 | 4.80 | 5.10 | 5.90 | 14.00 |
| 10 | 5.00 | 10.00 | 8.60 | 5.00 | 8.00 | 14.10 | 3.20 | 3.50 | 4.70 | 4.90 | 5.90 | 13.50 |
| 11 | 4.10 | 12.60 | 8.90 | 4.40 | 7.90 | 7.00 | 2.50 | 2.60 | 5.50 | 4.10 | 5.30 | 12.90 |
| 12 | 4.50 | 24.80 | 8.10 | 4.10 | 7.70 | 6.40 | 2.00 | 2.10 | 12.50 | 3.70 | 6.10 | 11.50 |
| 13 | 4.60 | 35.60 | 7.20 | 4.10 | 6.50 | 5.70 | 1.70 | 1.80 | 16.00 | 3.60 | 6.00 | 9.20 |
| 14 | 4.40 | 41.00 | 7.10 | 4.70 | 6.00 | 4.10 | 1.60 | 1.60 | 39.00 | 13.60 | 6.30 | 8.40 |
| 15 | 4.50 | 42.30 | 7.00 | 7.00 | 5.40 | 5.70 | 1.40 | 1.40 | 35.00 | 23.00 | 6.20 | 7.30 |
| 16 | 4.00 | 38.60 | 6.60 | 7.90 | 5.50 | 8.10 | 1.40 | 1.30 | 29.00 | 20.60 | 6.00 | 7.00 |
| 17 | 3.70 | 40.20 | 6.20 | 7.20 | 5.60 | 7.00 | 1.30 | 1.20 | 23.00 | 14.20 | 5.80 | 16.00 |
| 18 | 3.20 | 37.40 | 6.10 | 5.70 | 7.00 | 15.00 | 1.40 | 1.20 | 15.60 | 11.20 | 5.60 | 26.00 |
| 19 | 3.00 | 35.10 | 6.50 | 5.50 | 5.00 | 13.70 | 1.40 | 1.60 | 8.00 | 8.00 | 5.30 | 22.50 |
| 20 | 4.30 | 30.00 | 6.70 | 4.70 | 4.20 | 10.20 | 3.90 | 6.70 | 5.30 | 5.80 | 5.00 | 17.30 |
| 21 | 4.70 | 24.30 | 6.80 | 5.00 | 3.90 | 8.40 | 2.50 | 4.40 | 4.20 | 5.60 | 4.90 | 14.80 |
| 22 | 4.80 | 19.90 | 6.90 | 5.20 | 3.80 | 6.40 | 2.40 | 2.70 | 4.60 | 6.00 | 4.70 | 10.70 |
| 23 | 4.70 | 15.60 | 7.00 | 4.80 | 3.60 | 5.60 | 2.00 | 1.90 | 4.20 | 33.50 | 4.60 | 9.00 |
| 24 | 4.40 | 13.00 | 6.50 | 4.30 | 3.30 | 6.00 | 1.40 | 1.80 | 4.00 | 42.00 | 5.10 | 8.00 |
| 25 | 4.30 | 12.20 | 6.50 | 4.00 | 3.20 | 9.50 | 1.30 | 7.80 | 4.10 | 39.00 | 5.00 | 7.70 |
| 26 | 4.60 | 9.80 | 6.90 | 3.90 | 3.00 | 6.40 | 1.20 | 5.90 | 3.80 | 31.00 | 4.90 | 7.00 |
| 27 | 5.60 | 8.00 | 7.70 | 3.70 | 4.20 | 5.00 | 1.10 | 3.80 | 3.60 | 23.40 | 4.50 | 6.20 |
| 28 | 7.40 | 8.50 | 7.40 | 4.00 | 4.10 | 4.00 | 1.10 | 3.60 | 4.40 | 17.20 | 4.90 | 6.20 |
| 29 | 15.50 | ------ | 7.20 | 5.00 | 3.80 | 2.70 | 1.50 | 5.60 | 6.70 | 14.20 | 8.60 | 5.90 |
| 30 | 19.00 | ------ | 5.80 | 5.60 | 4.20 | 3.50 | 1.20 | 22.90 | 6.90 | 12.00 | 12.90 | 5.80 |
| 31 | 23.60 | ------ | 5.20 | ------ | 8.60 | ------ | 1.20 | 25.90 | ------ | 8.80 | ------ | 6.00 |
| 1894. | | | | | | | | | | | | |
| 1 | 8.00 | 15.90 | 25.00 | 5.70 | 3.40 | 7.20 | 2.10 | 6.00 | 5.00 | 14.30 | 12.60 | 4.30 |
| 2 | 9.30 | 11.60 | 28.20 | 5.40 | 3.40 | 5.30 | 2.10 | 7.00 | 4.30 | 12.90 | 12.00 | 4.30 |
| 3 | 7.30 | 10.60 | 26.50 | 5.00 | 3.30 | 4.00 | 5.00 | 5.50 | 3.90 | 9.40 | 10.00 | 4.40 |
| 4 | 7.00 | 9.70 | 22.00 | 4.90 | 3.30 | 3.60 | 7.70 | 14.00 | 3.40 | 7.20 | 14.20 | 4.10 |
| 5 | 6.00 | 12.80 | 18.00 | 5.00 | 3.20 | 3.10 | 7.60 | 25.40 | 4.20 | 6.60 | 20.00 | 4.40 |
| 6 | 6.10 | 15.00 | 16.10 | 5.80 | 3.40 | 2.60 | 5.80 | 31.20 | 4.60 | 11.30 | 15.90 | 5.10 |
| 7 | 6.40 | 12.00 | 12.80 | 4.80 | 10.60 | 2.50 | 4.50 | 34.40 | 4.00 | 9.70 | 11.50 | 5.40 |
| 8 | 23.00 | 10.90 | 10.00 | 4.60 | 9.80 | 2.30 | 3.90 | 29.60 | 3.80 | 7.00 | 8.70 | 5.50 |
| 9 | 27.00 | 8.60 | 8.30 | 4.40 | 7.50 | 2.00 | 3.80 | 24.70 | 3.60 | 6.00 | 7.00 | 5.60 |
| 10 | 23.50 | 12.00 | 8.30 | 4.10 | 5.40 | 2.10 | 3.10 | 19.00 | 3.40 | 29.00 | 6.20 | 5.70 |
| 11 | 25.60 | 10.20 | 8.30 | 4.20 | 4.80 | 2.00 | 2.60 | 12.20 | 3.10 | 47.40 | 6.50 | 5.80 |
| 12 | 23.50 | 8.60 | 8.00 | 8.30 | 4.40 | 2.00 | 2.50 | 9.00 | 2.60 | 47.90 | 6.20 | 10.20 |
| 13 | 19.50 | 8.20 | 7.80 | 8.60 | 3.30 | 1.90 | 2.00 | 7.60 | 2.30 | 38.80 | 6.20 | 17.20 |
| 14 | 17.00 | 8.00 | 7.30 | 7.00 | 3.20 | 1.60 | 1.80 | 8.80 | 1.90 | 29.00 | 6.30 | 18.40 |
| 15 | 15.40 | 13.60 | 7.30 | 6.20 | 3.60 | 1.60 | 1.60 | 8.10 | 1.90 | 22.30 | 6.50 | 12.00 |
| 16 | 14.40 | 27.40 | 7.00 | 5.00 | 3.40 | 1.50 | 1.60 | 8.40 | 1.80 | 16.60 | 7.10 | 10.40 |
| 17 | 12.00 | 28.00 | 6.90 | 4.70 | 4.20 | 1.20 | 1.80 | 10.40 | 1.50 | 12.40 | 6.20 | 8.00 |
| 18 | 11.60 | 23.80 | 6.30 | 4.30 | 4.00 | 1.10 | 2.10 | 10.30 | 1.40 | 8.60 | 6.90 | 7.20 |
| 19 | 11.00 | 18.60 | 8.60 | 4.20 | 4.50 | 1.00 | 3.30 | 9.00 | 4.60 | 7.20 | 6.40 | 6.50 |
| 20 | 10.00 | 16.00 | 9.70 | 4.00 | 6.80 | 1.30 | 2.90 | 7.80 | 12.00 | 5.80 | 5.90 | 6.00 |
| 21 | 8.20 | 15.00 | 8.50 | 5.60 | 10.00 | 2.90 | 2.70 | 8.60 | 8.90 | 6.20 | 5.90 | 5.90 |
| 22 | 7.30 | 12.40 | 7.00 | 5.80 | 8.00 | 3.00 | 2.30 | 6.70 | 7.00 | 5.80 | 6.00 | 5.30 |
| 23 | 7.00 | 11.00 | 6.90 | 5.80 | 6.40 | 2.70 | 4.30 | 5.60 | 5.20 | 5.60 | 5.70 | 5.50 |
| 24 | 6.80 | 11.00 | 6.30 | 5.30 | 7.20 | 2.80 | 8.00 | 5.00 | 4.20 | 5.50 | 5.40 | 5.10 |
| 25 | 7.00 | 11.20 | 6.00 | 5.00 | 8.40 | 2.80 | 14.20 | 4.70 | 3.30 | 5.40 | 5.40 | 5.00 |
| 26 | 7.00 | 12.00 | 6.90 | 4.20 | 8.20 | 2.20 | 11.00 | 3.60 | 2.90 | 5.30 | 5.60 | 4.90 |
| 27 | 6.80 | 14.40 | 8.60 | 4.00 | 7.00 | 1.80 | 7.70 | 5.30 | 4.00 | 5.50 | 5.20 | 4.90 |
| 28 | 6.60 | 20.00 | 8.00 | 3.70 | 4.90 | 1.80 | 4.60 | 9.40 | 11.60 | 10.50 | 5.00 | 8.50 |
| 29 | 7.00 | ------ | 7.00 | 3.70 | 4.80 | 1.70 | 3.90 | 11.00 | 17.00 | 15.60 | 4.90 | 11.60 |
| 30 | 11.40 | ------ | 6.50 | 3.50 | 4.30 | 1.70 | 3.30 | 7.00 | 15.50 | 13.20 | 4.60 | 8.90 |
| 31 | 17.00 | ------ | 6.00 | ------ | 4.60 | ------ | 4.50 | 5.90 | ------ | 10.40 | ------ | 7.00 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1895-1896.

| 1895. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.00 | 28.00 | 10.20 | 9.00 | 44.60 | 6.00 | 10.30 | 4.80 | 5.00 | 1.20 | 4.20 | 3.60 |
| 2 | 6.00 | 25.00 | 9.80 | 8.40 | 40.80 | 5.20 | 11.20 | 4.80 | 4.30 | 1.10 | 5.00 | 3.10 |
| 3 | 6.00 | 28.00 | 12.00 | 10.90 | 33.60 | 4.10 | 15.50 | 4.10 | 4.40 | 1.00 | 6.00 | 3.20 |
| 4 | 6.40 | 27.80 | 24.80 | 11.00 | 27.00 | 4.00 | 14.00 | 3.80 | 4.40 | 1.00 | 7.00 | 3.00 |
| 5 | 7.80 | 23.40 | 25.20 | 11.00 | 22.00 | 4.00 | 11.50 | 3.60 | 4.00 | .70 | 6.00 | 3.00 |
| 6 | 7.40 | 18.90 | 19.20 | 9.40 | 17.90 | 4.20 | 8.00 | 3.40 | 3.70 | .90 | 4.80 | 3.00 |
| 7 | 6.10 | 15.20 | 17.00 | 9.00 | 14.20 | 4.00 | 6.50 | 3.10 | 3.40 | 1.10 | 4.10 | 2.90 |
| 8 | 5.90 | 14.00 | 15.40 | 11.50 | 17.20 | 4.50 | 5.40 | 3.70 | 3.20 | 1.30 | 3.60 | 2.80 |
| 9 | 8.00 | 11.80 | 23.60 | 42.00 | 18.00 | 4.40 | 5.00 | 3.90 | 3.20 | 1.60 | 3.20 | 2.60 |
| 10 | 37.00 | 11.00 | 20.00 | 47.70 | 14.80 | 4.30 | 5.10 | 4.70 | 4.70 | 1.90 | 3.10 | 3.90 |
| 11 | 52.00 | 10.00 | 18.70 | 46.40 | 11.80 | 4.10 | 5.00 | 4.40 | 5.00 | 1.70 | 3.70 | 10.60 |
| 12 | 58.00 | 9.80 | 17.80 | 35.00 | 12.40 | 5.30 | 4.90 | 4.00 | 4.70 | 1.60 | 7.00 | 13.20 |
| 13 | 56.40 | 9.40 | 20.60 | 25.20 | 11.20 | 7.00 | 5.40 | 4.30 | 4.50 | 2.00 | 8.90 | 10.00 |
| 14 | 47.40 | 9.00 | 23.00 | 18.50 | 10.90 | 9.40 | 5.40 | 8.00 | 3.90 | 2.00 | 6.60 | 8.20 |
| 15 | 38.00 | 8.80 | 30.40 | 14.20 | 9.00 | 8.40 | 4.40 | 7.00 | 3.10 | 1.80 | 5.40 | 6.20 |
| 16 | 25.50 | 9.20 | 26.50 | 11.80 | 8.50 | 10.20 | 5.50 | 7.20 | 2.80 | 1.60 | 4.40 | 5.20 |
| 17 | 17.80 | 10.50 | 24.00 | 12.40 | 8.40 | 11.00 | 5.70 | 12.90 | 2.80 | 1.50 | 4.00 | 4.70 |
| 18 | 14.80 | 11.60 | 20.20 | 29.20 | 8.00 | 12.20 | 5.80 | 20.00 | 2.60 | 1.30 | 3.80 | 4.30 |
| 19 | 12.00 | 14.00 | 18.00 | 36.70 | 11.80 | 8.90 | 7.00 | 20.20 | 2.40 | 1.50 | 3.50 | 4.10 |
| 20 | 11.00 | 16.20 | 14.80 | 32.50 | 10.40 | 5.80 | 5.20 | 15.30 | 2.10 | 1.50 | 3.20 | 4.20 |
| 21 | 10.40 | 16.40 | 31.00 | 26.50 | 12.00 | 4.80 | 4.50 | 11.50 | 2.10 | 1.20 | 3.10 | 4.00 |
| 22 | 9.90 | 18.40 | 41.00 | 18.00 | 8.40 | 4.20 | 4.20 | 8.90 | 2.00 | 1.30 | 3.10 | 4.00 |
| 23 | 11.00 | 18.90 | 37.10 | 14.00 | 7.80 | 5.20 | 4.90 | 8.00 | 1.70 | 1.40 | 3.00 | 18.50 |
| 24 | 10.40 | 19.00 | 30.10 | 12.90 | 7.20 | 5.60 | 5.00 | 8.30 | 1.70 | 1.30 | 2.90 | 13.40 |
| 25 | 9.70 | 16.40 | 23.40 | 12.20 | 8.00 | 4.50 | 5.70 | 6.80 | 1.60 | 1.30 | 2.80 | 9.20 |
| 26 | 11.00 | 15.20 | 18.20 | 10.20 | 8.70 | 4.50 | 15.60 | 5.70 | 1.50 | 1.10 | 2.80 | 7.00 |
| 27 | 29.00 | 12.00 | 15.00 | 12.00 | 10.80 | 7.20 | 21.00 | 4.80 | 1.40 | 1.30 | 3.00 | 5.80 |
| 28 | 24.20 | 11.20 | 12.80 | 18.50 | 10.20 | 9.10 | 15.50 | 5.60 | 1.30 | 1.20 | 4.50 | 5.00 |
| 29 | 20.20 | ------- | 10.20 | 28.00 | 9.50 | 10.20 | 10.00 | 7.00 | 1.30 | 1.40 | 4.00 | 4.90 |
| 30 | 24.00 | ------- | 9.90 | 39.30 | 8.00 | 9.20 | 6.20 | 6.40 | 1.30 | 1.30 | 4.00 | 4.80 |
| 31 | 26.40 | ------- | 9.40 | ------- | 7.10 | ------- | 5.10 | 6.10 | ------- | 1.60 | ------ | 6.00 |
| 1896. | | | | | | | | | | | | |
| 1 | 18.00 | 6.50 | 9.00 | 7.50 | 3.70 | 4.00 | 7.00 | 3.30 | 1.30 | 31.00 | 2.50 | 6.00 |
| 2 | 18.90 | 6.50 | 10.40 | 9.50 | 5.00 | 3.20 | 5.30 | 4.30 | 1.10 | 26.80 | 2.70 | 15.40 |
| 3 | 11.40 | 7.90 | 9.30 | 22.50 | 8.00 | 2.70 | 4.00 | 4.00 | 1.00 | 19.50 | 2.70 | 14.00 |
| 4 | 8.00 | 27.70 | 7.60 | 19.40 | 12.80 | 4.00 | 3.50 | 3.30 | .80 | 12.90 | 3.00 | 12.40 |
| 5 | 6.50 | 31.00 | 6.80 | 13.00 | 10.40 | 19.00 | 3.50 | 3.00 | 1.50 | 7.80 | 4.30 | 10.40 |
| 6 | 5.70 | 30.00 | 6.00 | 9.80 | 8.30 | 20.00 | 5.90 | 3.00 | 3.00 | 4.90 | 17.00 | 9.50 |
| 7 | 4.60 | 45.40 | 5.80 | 8.00 | 6.00 | 14.00 | 4.40 | 2.80 | 8.50 | 4.20 | 19.00 | 9.60 |
| 8 | 4.40 | 48.00 | 5.80 | 6.80 | 4.50 | 10.00 | 15.00 | 2.60 | 9.50 | 3.60 | 14.30 | 13.50 |
| 9 | 4.60 | 45.00 | 5.40 | 6.00 | 4.40 | 8.00 | 34.80 | 2.30 | 5.50 | 3.20 | 10.40 | 14.50 |
| 10 | 4.60 | 42.40 | 5.40 | 5.40 | 3.90 | 6.20 | 47.50 | 2.00 | 4.00 | 3.00 | 7.70 | 13.60 |
| 11 | 4.70 | 36.00 | 5.50 | 5.20 | 3.50 | 6.00 | 49.50 | 2.00 | 3.30 | 2.70 | 6.00 | 11.70 |
| 12 | 4.40 | 30.40 | 7.80 | 5.50 | 3.20 | 6.00 | 47.00 | 1.90 | 2.50 | 2.70 | 4.80 | 9.50 |
| 13 | 4.20 | 19.00 | 11.00 | 5.50 | 2.80 | 5.00 | 41.00 | 2.70 | 2.00 | 2.70 | 4.60 | 8.20 |
| 14 | 4.00 | 16.20 | 10.00 | 5.00 | 2.80 | 7.00 | 30.30 | 4.00 | 1.50 | 3.00 | 4.50 | 7.00 |
| 15 | 4.10 | 17.40 | 8.60 | 4.90 | 2.60 | 10.90 | 19.00 | 3.40 | 1.40 | 3.30 | 4.50 | 7.50 |
| 16 | 4.00 | 16.00 | 7.20 | 5.00 | 2.50 | 8.50 | 14.40 | 3.70 | 1.20 | 3.20 | 4.80 | 9.40 |
| 17 | 5.00 | 13.40 | 7.50 | 4.90 | 2.50 | 5.70 | 9.50 | 3.70 | 1.00 | 3.00 | 4.20 | 14.00 |
| 18 | 19.00 | 11.60 | 8.00 | 4.70 | 2.10 | 4.60 | 9.30 | 3.00 | 1.50 | 2.90 | 4.00 | 12.30 |
| 19 | 26.00 | 10.50 | 7.80 | 4.50 | 2.40 | 6.00 | 9.00 | 2.60 | 1.90 | 2.60 | 4.00 | 9.00 |
| 20 | 21.40 | 10.60 | 8.50 | 4.20 | 2.30 | 5.30 | 8.70 | 2.50 | 3.00 | 2.40 | 3.80 | 9.00 |
| 21 | 15.00 | 9.80 | 10.50 | 4.00 | 3.50 | 6.40 | 8.90 | 2.50 | 2.50 | 2.10 | 3.60 | 8.20 |
| 22 | 12.20 | 9.00 | 9.60 | 3.80 | 4.10 | 5.00 | 8.30 | 2.10 | 1.50 | 2.20 | 3.50 | 7.00 |
| 23 | 10.00 | 8.00 | 7.80 | 3.60 | 8.17 | 4.30 | 7.90 | 2.70 | 6.00 | 2.30 | 3.20 | 6.90 |
| 24 | 25.00 | 7.80 | 6.80 | 3.50 | 11.40 | 4.50 | 7.20 | 2.00 | 6.80 | 2.70 | 3.10 | 6.30 |
| 25 | 25.60 | 7.80 | 6.50 | 4.00 | 17.40 | 6.40 | 7.50 | 2.40 | 5.00 | 4.40 | 3.00 | 5.40 |
| 26 | 21.00 | 7.70 | 6.60 | 4.60 | 12.00 | 7.80 | 7.00 | 4.00 | 3.90 | 4.10 | 3.00 | 4.60 |
| 27 | 16.20 | 7.40 | 7.00 | 7.00 | 9.50 | 8.60 | 5.20 | 3.70 | 3.20 | 3.50 | 3.00 | 5.00 |
| 28 | 12.00 | 7.30 | 6.30 | 5.50 | 8.00 | 6.00 | 4.30 | 2.70 | 2.90 | 3.00 | 3.30 | 4.90 |
| 29 | 9.40 | 7.90 | 6.20 | 4.90 | 7.20 | 10.80 | 3.70 | 2.00 | 3.50 | 2.80 | 3.20 | 4.80 |
| 30 | 8.10 | ------- | 5.80 | 4.10 | 6.00 | 8.90 | 3.60 | 1.90 | 8.00 | 2.50 | 3.50 | 4.90 |
| 31 | 7.00 | ------- | 5.30 | ------- | 5.00 | ------- | 3.40 | 1.40 | ------- | 2.50 | ------ | 5.00 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1897–1898.

| 1897. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.20 | 5.50 | 13.40 | 7.70 | 6.10 | 7.00 | 5.00 | 4.70 | 2.20 | 0.70 | 1.90 | 5.50 |
| 2 | 6.00 | 5.90 | 11.70 | 8.00 | 10.00 | 8.60 | 3.20 | 3.20 | 4.60 | .70 | 5.50 | 6.00 |
| 3 | 5.50 | 25.00 | 10.20 | 7.30 | 14.40 | 6.50 | 2.50 | 3.00 | 3.50 | .80 | 9.70 | 5.10 |
| 4 | 5.50 | 27.00 | 9.00 | 8.00 | 13.20 | 5.00 | 2.00 | 2.70 | 3.00 | .60 | 9.30 | 4.60 |
| 5 | 5.30 | 19.70 | 8.50 | 9.30 | 9.30 | 4.20 | 1.90 | 2.20 | 2.50 | .70 | 7.20 | 4.30 |
| 6 | 5.00 | 15.00 | 7.60 | 27.00 | 8.00 | 4.30 | 3.90 | 2.60 | 2.10 | .50 | 5.00 | 5.10 |
| 7 | 4.80 | 29.10 | 9.20 | 28.30 | 6.30 | 7.00 | 4.20 | 4.10 | 1.80 | .30 | 4.00 | 5.20 |
| 8 | 4.60 | 36.50 | 25.60 | 22.00 | 5.60 | 5.50 | 4.80 | 6.80 | 1.50 | .20 | 3.50 | 4.70 |
| 9 | 4.60 | 32.00 | 26.20 | 15.40 | 5.00 | 7.00 | 4.20 | 6.20 | 1.10 | .20 | 2.90 | 4.10 |
| 10 | 4.40 | 24.30 | 20.00 | 23.50 | 4.60 | 7.80 | 4.00 | 6.20 | 1.10 | .30 | 2.60 | 3.70 |
| 11 | 4.20 | 17.60 | 21.40 | 28.00 | 4.20 | 5.50 | 4.00 | 5.40 | 1.10 | .60 | 2.40 | 3.40 |
| 12 | 4.10 | 13.00 | 22.00 | 22.70 | 5.20 | 4.40 | 3.90 | 4.30 | 1.10 | .60 | 2.50 | 3.30 |
| 13 | 4.00 | 18.20 | 29.70 | 18.30 | 6.00 | 4.20 | 6.00 | 3.50 | .90 | .60 | 2.40 | 3.30 |
| 14 | 4.50 | 19.00 | 32.00 | 14.30 | 10.00 | 3.50 | 11.10 | 3.00 | .80 | .60 | 2.30 | 3.00 |
| 15 | 6.00 | 16.30 | 36.40 | 12.80 | 17.40 | 3.20 | 6.00 | 2.40 | .70 | .40 | 2.00 | 3.00 |
| 16 | 6.40 | 12.80 | 37.60 | 10.20 | 14.00 | 3.00 | 4.60 | 3.80 | .60 | .30 | 2.00 | 4.00 |
| 17 | 7.80 | 13.20 | 37.60 | 10.00 | 10.30 | 2.70 | 3.20 | 3.00 | .30 | .30 | 1.80 | 4.90 |
| 18 | 7.00 | 15.00 | 29.00 | 9.80 | 8.30 | 3.00 | 3.20 | 2.50 | .80 | .30 | 1.60 | 5.20 |
| 19 | 8.50 | 12.90 | 23.80 | 8.40 | 6.70 | 3.50 | 3.80 | 2.20 | .80 | .30 | 1.90 | 4.50 |
| 20 | 9.60 | 10.80 | 19.20 | 7.70 | 5.50 | 4.50 | 5.50 | 3.00 | .90 | .40 | 1.90 | 3.90 |
| 21 | 7.80 | 14.00 | 18.00 | 7.00 | 4.80 | 4.30 | 16.50 | 3.20 | 1.40 | .90 | 1.70 | 3.50 |
| 22 | 20.40 | 24.30 | 16.60 | 6.70 | 4.50 | 3.50 | 25.30 | 5.00 | 1.40 | 1.50 | 1.70 | 3.50 |
| 23 | 24.55 | 23.50 | 13.70 | 6.30 | 4.30 | 3.00 | 16.40 | 5.20 | 1.10 | 1.60 | 1.70 | 4.80 |
| 24 | 16.80 | 23.50 | 11.20 | 5.80 | 4.20 | 2.40 | 12.70 | 6.50 | 1.10 | 1.70 | 1.50 | 9.00 |
| 25 | 12.60 | 24.20 | 10.00 | 5.50 | 4.30 | 1.80 | 8.50 | 5.60 | 1.10 | 2.00 | 1.40 | 7.80 |
| 26 | 8.50 | 23.30 | 9.30 | 5.50 | 4.60 | 4.80 | 6.10 | 4.90 | 1.10 | 2.20 | 1.60 | 5.70 |
| 27 | 7.20 | 20.40 | 8.40 | 5.20 | 4.50 | 3.40 | 7.00 | 4.00 | .90 | 1.90 | 1.70 | 6.00 |
| 28 | 7.00 | 16.60 | 8.00 | 4.70 | 4.40 | 2.80 | 7.30 | 3.50 | 1.10 | 1.90 | 1.90 | 10.00 |
| 29 | 6.60 | ------- | 7.40 | 4.50 | 4.00 | 3.70 | 6.90 | 2.90 | .80 | 1.70 | 2.30 | 9.50 |
| 30 | 5.90 | ------- | 7.20 | 4.40 | 4.40 | 4.00 | 5.60 | 2.50 | .70 | 1.90 | 3.50 | 7.10 |
| 31 | 5.60 | ------- | 7.20 | ------- | 4.30 | ------- | 5.00 | 2.50 | ------- | 1.70 | ------ | 5.00 |
| 1898. | | | | | | | | | | | | |
| 1 | 5.00 | 5.00 | 3.50 | 21.00 | 6.60 | 3.20 | 2.00 | 6.00 | 10.30 | 2.90 | 14.00 | 6.10 |
| 2 | 4.90 | 4.90 | 3.20 | 17.30 | 5.50 | 3.00 | 2.00 | 7.00 | 9.60 | 2.50 | 9.30 | 6.90 |
| 3 | 4.50 | 4.80 | 3.50 | 11.00 | 5.00 | 3.00 | 1.50 | 7.00 | 7.20 | 2.40 | 7.10 | 6.70 |
| 4 | 4.30 | 4.40 | 3.50 | 9.40 | 4.30 | 2.70 | 1.20 | 6.40 | 5.70 | 2.50 | 5.50 | 8.40 |
| 5 | 3.70 | 4.00 | 7.00 | 6.00 | 4.10 | 2.30 | 1.00 | 5.20 | 14.00 | 2.40 | 4.70 | 16.00 |
| 6 | 3.70 | 3.90 | 20.50 | 12.80 | 3.80 | 1.90 | 5.10 | 5.00 | 18.80 | 2.50 | 4.20 | 18.00 |
| 7 | 3.60 | 3.80 | 17.70 | 21.50 | 3.10 | 1.40 | 12.00 | 4.10 | 14.00 | 5.50 | 3.80 | 14.60 |
| 8 | 4.00 | 3.60 | 11.00 | 15.30 | 8.00 | 1.20 | 16.20 | 3.00 | 12.50 | 5.60 | 5.40 | 11.80 |
| 9 | 3.60 | 3.50 | 8.70 | 11.70 | 7.00 | 1.10 | 12.40 | 3.00 | 13.20 | 4.20 | 5.00 | 9.00 |
| 10 | 3.50 | 3.40 | 7.90 | 8.00 | 6.30 | 1.20 | 10.20 | 2.60 | 10.00 | 3.40 | 4.80 | 7.00 |
| 11 | 3.40 | 3.40 | 5.80 | 7.00 | 5.40 | 1.10 | 12.50 | 2.30 | 8.70 | 2.70 | 4.30 | 5.50 |
| 12 | 3.30 | 3.50 | 5.20 | 6.10 | 4.50 | 1.10 | 8.00 | 3.70 | 6.50 | 2.30 | 3.70 | 5.30 |
| 13 | 3.40 | 3.50 | 4.90 | 5.90 | 4.00 | 1.20 | 6.00 | 5.00 | 5.00 | 2.00 | 3.50 | 5.30 |
| 14 | 3.60 | 3.40 | 5.00 | 5.70 | 3.70 | 1.30 | 5.10 | 9.40 | 4.30 | 1.90 | 3.90 | 5.30 |
| 15 | 3.80 | 3.20 | 5.10 | 5.40 | 5.00 | 1.30 | 5.10 | 16.00 | 4.10 | 1.80 | 4.30 | 5.00 |
| 16 | 3.60 | 2.90 | 8.00 | 5.40 | 4.90 | 2.50 | 5.50 | 14.00 | 3.80 | 1.80 | 6.00 | 5.00 |
| 17 | 3.70 | 2.90 | 9.20 | 5.60 | 5.10 | 3.90 | 5.50 | 10.00 | 3.60 | 1.50 | 7.00 | 4.80 |
| 18 | 3.60 | 2.90 | 7.70 | 5.40 | 4.70 | 4.30 | 4.10 | 7.00 | 3.40 | 1.30 | 9.80 | 4.60 |
| 19 | 3.70 | 3.10 | 6.20 | 4.70 | 4.20 | 3.90 | 6.00 | 9.20 | 3.10 | 2.00 | 10.20 | 4.70 |
| 20 | 3.80 | 4.50 | 5.50 | 4.40 | 4.00 | 4.00 | 5.50 | 22.20 | 2.90 | 5.00 | 11.00 | 4.60 |
| 21 | 3.60 | 5.30 | 5.00 | 4.20 | 3.50 | 7.00 | 5.50 | 29.00 | 2.50 | 5.00 | 12.20 | 5.30 |
| 22 | 4.10 | 5.70 | 5.00 | 4.00 | 3.00 | 7.00 | 4.20 | 29.20 | 2.20 | 4.50 | 9.60 | 6.10 |
| 23 | 4.40 | 6.00 | 4.70 | 3.90 | 3.00 | 5.50 | 3.60 | 23.50 | 2.50 | 10.00 | 7.80 | 8.00 |
| 24 | 4.40 | 5.50 | 4.50 | 4.10 | 2.90 | 4.30 | 10.00 | 18.00 | 15.00 | 9.80 | 5.60 | 7.30 |
| 25 | 4.40 | 5.10 | 4.20 | 4.40 | 12.00 | 3.20 | 7.00 | 10.30 | 14.00 | 6.00 | 5.10 | 7.00 |
| 26 | 5.50 | 4.50 | 5.00 | 7.20 | 11.40 | 2.70 | 6.00 | 6.00 | 9.80 | 4.50 | 5.00 | 6.40 |
| 27 | 14.00 | 4.10 | 6.00 | 10.40 | 9.00 | 2.20 | 4.60 | 6.10 | 7.00 | 4.70 | 5.10 | 5.50 |
| 28 | 11.00 | 3.80 | 5.60 | 10.70 | 6.70 | 1.70 | 4.10 | 6.20 | 5.00 | 4.50 | 4.70 | 5.30 |
| 29 | 9.20 | ------- | 4.70 | 12.00 | 5.00 | 1.60 | 4.00 | 7.00 | 3.90 | 3.60 | 4.40 | 5.10 |
| 30 | 6.50 | ------- | 4.30 | 9.60 | 4.00 | 2.10 | 3.90 | 8.50 | 3.40 | 3.50 | 4.70 | 4.90 |
| 31 | 5.30 | ------- | 14.80 | ------- | 3.50 | ------- | 4.00 | 11.00 | ------- | 10.00 | ------ | 4.70 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1899-1900.

| 1899. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 4.50 | 11.00 | 30.80 | 17.80 | 7.20 | 6.00 | 2.90 | 11.50 | 2.40 | 2.00 | 11.00 | 8.00 |
| 2 | 4.60 | 18.10 | 25.00 | 17.00 | 6.00 | 6.40 | 6.40 | 10.00 | 2.20 | 1.70 | 21.40 | 6.40 |
| 3 | 6.50 | 14.00 | 21.00 | 14.00 | 6.00 | 8.00 | 8.00 | 8.80 | 1.90 | 1.70 | 17.50 | 6.50 |
| 4 | 6.50 | 12.80 | 28.60 | 12.20 | 5.50 | 7.60 | 7.60 | 7.00 | 1.60 | 1.50 | 12.80 | 7.00 |
| 5 | 5.80 | 23.00 | 34.40 | 15.60 | 5.50 | 6.10 | 6.10 | 5.50 | 1.50 | 1 40 | 10.40 | 6.70 |
| 6 | 5.50 | 31.90 | 33.20 | 21.00 | 5.50 | 4.20 | 4.20 | 4.20 | 1.60 | 2.10 | 8.30 | 5.50 |
| 7 | 5.50 | 41.00 | 27.40 | 17.60 | 5.50 | 4.20 | 4.20 | 3.20 | 1.40 | 14.40 | 6.50 | 5.10 |
| 8 | 17.00 | 50.80 | 25.00 | 23.20 | 8.60 | 3.80 | 3.80 | 2.60 | 2.00 | 13.50 | 5.00 | 4.90 |
| 9 | 21.40 | 52.00 | 20.00 | 35.50 | 14.20 | 3.50 | 8.30 | 7.00 | 1.80 | 17.00 | 5.00 | 4.70 |
| 10 | 14.90 | 47.30 | 15.00 | 30.30 | 13.00 | 4.50 | 9.30 | 10.20 | 1.90 | 13.20 | 5.00 | 4.30 |
| 11 | 10.20 | 37.40 | 11.50 | 23.00 | 9.80 | 7.50 | 6.40 | 7.00 | 1.80 | 10.00 | 4.80 | 4.30 |
| 12 | 8.00 | 30.00 | 10.20 | 19.40 | 10.90 | 8.10 | 5.00 | 5.50 | 5.70 | 7.00 | 4.50 | 4.50 |
| 13 | 9.30 | 20.80 | 9.40 | 15.80 | 11.00 | 10.00 | 3.60 | 4.60 | 4.00 | 5.00 | 4.60 | 4.00 |
| 14 | 10.00 | 12.30 | 8.70 | 13.50 | 15.40 | 11.10 | 3.10 | 3.70 | 4.00 | 4.50 | 4.30 | 14.00 |
| 15 | 19.00 | 10.00 | 18.60 | 10.20 | 17.30 | 8.00 | 2.60 | 3.00 | 4.60 | 3.80 | 4.00 | 10.00 |
| 16 | 23.60 | 12.50 | 38.60 | 9.80 | 12.00 | 5.80 | 2.40 | 2.70 | 4.00 | 3.50 | 4.00 | 7.50 |
| 17 | 17.20 | 24.00 | 42.00 | 9.00 | 9.70 | 5.00 | 2.40 | 2.50 | 2.50 | 3.50 | 4.00 | 6.00 |
| 18 | 14.50 | 36.50 | 38.00 | 10.00 | 7.20 | 4.60 | 4.50 | 2.40 | 1.80 | 3.00 | 3.90 | 5.40 |
| 19 | 13.40 | 42.60 | 28.00 | 9.20 | 5.50 | 4.10 | 4.00 | 2.70 | 1.60 | 3.30 | 3.80 | 5.00 |
| 20 | 11.00 | 43.00 | 28.80 | 9.40 | 5.30 | 3.70 | 3.50 | 2.70 | 1.80 | 3.00 | 3.60 | 4.80 |
| 21 | 9.20 | 38.50 | 32.00 | 9.00 | 5.20 | 3.20 | 3.00 | 2.30 | 2.50 | 2.70 | 3.50 | 4.50 |
| 22 | 8.00 | 34.00 | 25.00 | 8.50 | 5.00 | 3.20 | 2.40 | 2.20 | 4.00 | 2.50 | 3.30 | 4.00 |
| 23 | 7.00 | 28.30 | 18.00 | 8.40 | 5.30 | 3.00 | 2.30 | 5.00 | 3.70 | 2.20 | 3.30 | 4.20 |
| 24 | 6.20 | 23.00 | 14.70 | 8.00 | 6.30 | 3.10 | 2.80 | 3.70 | 3.20 | 2.30 | 3.80 | 5.40 |
| 25 | 6.20 | 18.20 | 12.00 | 6.60 | 6.00 | 2.90 | 4.00 | 2.50 | 2.60 | 2.10 | 4.00 | 10.00 |
| 26 | 6.00 | 16.40 | 10.00 | 7.00 | 5.50 | 2.50 | 6.40 | 2.70 | 2.90 | 2.10 | 4.00 | 12.00 |
| 27 | 7.00 | 17.00 | 10.00 | 10.00 | 5.30 | 2.80 | 7.00 | 2.10 | 3.70 | 2.10 | 4.50 | 9.70 |
| 28 | 6.80 | 28.40 | 12.00 | 11.40 | 4.70 | 3.10 | 12.80 | 1.60 | 3.90 | 2.10 | 5.60 | 7.30 |
| 29 | 6.60 | ------ | 17.80 | 10.00 | 4.20 | 3.50 | 11.70 | 1.60 | 3.00 | 2.10 | 10.00 | 6.00 |
| 30 | 6.60 | ------ | 21.70 | 8.80 | 4.20 | 3.20 | 9.90 | 1.50 | 2.50 | 2.10 | 9.50 | 5.90 |
| 31 | 7.00 | ------ | 19.20 | ------ | 5.00 | ------ | 7.60 | 2.90 | ------ | 4.20 | ------ | ------ |
| 1900. | | | | | | | | | | | | |
| 1 | 5.00 | 5.20 | 12.00 | 9.00 | 8.30 | 3.20 | 5.00 | 2.60 | 5.00 | 0.90 | 0.60 | 2.80 |
| 2 | 4.90 | 5.00 | 27.00 | 7.70 | 9.70 | 3.20 | 4.30 | 2.80 | 4.50 | .80 | .50 | 2.20 |
| 3 | 4.30 | 4.60 | 33.70 | 6.90 | 7.30 | 3.00 | 4.00 | 2.20 | 3.80 | .70 | .70 | 2.10 |
| 4 | 4.40 | 4.40 | 29.00 | 6.70 | 6.90 | 2.80 | 3.50 | 1.80 | 2.50 | .60 | 2.50 | 2.30 |
| 5 | 4.20 | 5.30 | 22.30 | 9.10 | 6.40 | 2.80 | 3.10 | 1.80 | 1.80 | .90 | 12.50 | 14.00 |
| 6 | 4.40 | 7.50 | 15.00 | 10.00 | 5.60 | 2.70 | 3.60 | 1.40 | 1.20 | 1.20 | 10.50 | 15.00 |
| 7 | 4.20 | 10.00 | 11.70 | 9.20 | 5.30 | 2.70 | 3.10 | 1.40 | .80 | 1.00 | 7.00 | 9.20 |
| 8 | 4.10 | 8.00 | 9.70 | 6.70 | 5.00 | 2.60 | 3.10 | 1.20 | .70 | .80 | 5.20 | 8.40 |
| 9 | 3.90 | 6.40 | 10.00 | 6.00 | 5.00 | 3.50 | 2.60 | .90 | .60 | .70 | 4.00 | 6.50 |
| 10 | 3.90 | 7.00 | 23.00 | 5.80 | 4.90 | 3.90 | 2.20 | .80 | .40 | .70 | 3.40 | 4.80 |
| 11 | 4.80 | 10.00 | 19.00 | 5.80 | 5.50 | 4.20 | 1.80 | .70 | .60 | .90 | 2.90 | 4.00 |
| 12 | 9.00 | 20.80 | 17.20 | 5.60 | 5.50 | 4.20 | 1.60 | .70 | .50 | .80 | 2.50 | 3.50 |
| 13 | 21.30 | 25.70 | 14.30 | 18.00 | 5.00 | 3.00 | 1.40 | .70 | .30 | 1.80 | 2.40 | 3.40 |
| 14 | 21.00 | 36.00 | 10.40 | 18.00 | 4.70 | 2.60 | 1.80 | .70 | .40 | 1.60 | 2.00 | 3.30 |
| 15 | 17.30 | 35.80 | 8.70 | 14.40 | 4.00 | 2.50 | 5.00 | .80 | .50 | 1.30 | 1.90 | 3.30 |
| 16 | 12.00 | 30.00 | 9.80 | 10.20 | 3.80 | 3.00 | 3.00 | .60 | 2.10 | 1.40 | 2.00 | 3.40 |
| 17 | 9.10 | 24.70 | 19.00 | 7.00 | 3.80 | 2.70 | 2.50 | .50 | 10.40 | 2.90 | 1.80 | 3.10 |
| 18 | 7.50 | 18.40 | 19.00 | 6.00 | 3.60 | 5.50 | 2.00 | 4.50 | 8.40 | 2.70 | 1.50 | 3.00 |
| 19 | 6.50 | 13.70 | 15.00 | 6.00 | 8.00 | 14.00 | 1.70 | 3.90 | 4.60 | 1.90 | 1.30 | 3.00 |
| 20 | 7.70 | 9.00 | 12.40 | 38.00 | 18.00 | 8.00 | 1.50 | 2.80 | 3.20 | 1.60 | 1.10 | 2.60 |
| 21 | 12.50 | 8.20 | 10.00 | 44.00 | 14.00 | 5.70 | 1.30 | 2.40 | 2.10 | 1.20 | 1.00 | 4.00 |
| 22 | 14.00 | 9.10 | 9.40 | 44.00 | 10.40 | 4.40 | 1.10 | 1.70 | 1.70 | 1.00 | 1.10 | 12.80 |
| 23 | 11.70 | 23.00 | 8.50 | 38.00 | 7.00 | 4.00 | 1.00 | 1.60 | 1.40 | .90 | 1.10 | 16.00 |
| 24 | 8.00 | 23.00 | 7.60 | 33.00 | 5.40 | 12.00 | .90 | 3.50 | 1.30 | .80 | 1.10 | 11.40 |
| 25 | 7.10 | 17.50 | 7.00 | 26.00 | 5.70 | 17.40 | 3.50 | 2.20 | 1.00 | .80 | 1.10 | 9.80 |
| 26 | 6.50 | 21.00 | 9.80 | 22.00 | 5.50 | 16.00 | 3.80 | 2.30 | .90 | .70 | 1.50 | 7.00 |
| 27 | 6.10 | 19 00 | 14.00 | 17.00 | 5.50 | 13.70 | 4.50 | 1.70 | .80 | .70 | 1.50 | 5.60 |
| 28 | 5.60 | 14.10 | 14.00 | 12.20 | 5.00 | 8.00 | 12.00 | 1.20 | 1.30 | .80 | 2.50 | 4.40 |
| 29 | 5.70 | ------ | 11.60 | 10.00 | 4.50 | 5.50 | 9.00 | .90 | 1.00 | .60 | 3.20 | 4.00 |
| 30 | 5.50 | ------ | 9.80 | 8.30 | 4.00 | 5.00 | 5.80 | .90 | 1.10 | .70 | 3.10 | 4.40 |
| 31 | 5.30 | ------ | 9.60 | ------ | 3.70 | ------ | 4.60 | 1.10 | ------ | .70 | ------ | 6.20 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1901-1902.

| 1901. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 12.00 | 6.40 | 4.20 | 12.80 | 5.20 | 13.30 | 9.20 | 4.70 | 11.00 | 10.40 | 3.60 | 3.80 |
| 2 | 11.40 | 6.40 | 4.00 | 9.60 | 4.80 | 10.00 | 10.00 | 4.90 | 13.60 | 9.30 | 3.80 | 3.70 |
| 3 | 10.00 | 5.50 | 3.90 | 14.40 | 4.50 | 9.00 | 9.50 | 4.20 | 12.40 | 10.00 | 3.80 | 3.60 |
| 4 | 8.20 | 5.60 | 3.70 | 45.90 | 4.50 | 7.80 | 7.00 | 4.00 | 9.80 | 9.40 | 3.60 | 4.00 |
| 5 | 6.00 | 9.00 | 3.70 | 47.70 | 4.30 | 6.30 | 5.50 | 3.60 | 7.60 | 8.50 | 3.60 | 4.00 |
| 6 | 5.70 | 11.00 | 3.70 | 41.70 | 4.00 | 6.30 | 4.60 | 6.00 | 6.50 | 7.50 | 3.60 | 3.80 |
| 7 | 5.20 | 8.20 | 3.30 | 30.80 | 3.90 | 6.00 | 3.80 | 29.40 | 5.80 | 6.30 | 3.70 | 4.10 |
| 8 | 4.60 | 6.40 | 3.10 | 23.80 | 4.00 | 5.90 | 4.10 | 43.60 | 5.50 | 5.90 | 3.70 | 4.00 |
| 9 | 4.00 | 6.00 | 3.10 | 16.60 | 5.00 | 5.60 | 6.00 | 44.80 | 5.30 | 5.30 | 3.70 | 3.80 |
| 10 | 4.20 | 10.00 | 3.00 | 10.00 | 5.50 | 5.40 | 10.20 | 38.00 | 5.00 | 5.20 | 3.70 | 3.90 |
| 11 | 4.50 | 11.20 | 3.50 | 7.00 | 7.70 | 5.00 | 10.00 | 30.70 | 4.70 | 5.20 | 3.50 | 3.80 |
| 12 | 4.80 | 9.30 | 4.30 | 6.60 | 10.50 | 4.80 | 8.70 | 19.80 | 4.70 | 5.00 | 3.50 | 4.00 |
| 13 | 12.90 | 10.00 | 5.30 | 6.00 | 10.00 | 4.40 | 7.00 | 11.00 | 4.40 | 4.80 | 3.50 | 3.90 |
| 14 | 15.40 | 9.50 | 5.00 | 7.00 | 8.30 | 6.30 | 8.00 | 28.80 | 4.30 | 5.00 | 3.60 | 4.00 |
| 15 | 11.00 | 7.40 | 4.50 | 20.40 | 7.00 | 9.40 | 30.10 | 42.00 | 4.10 | 9.00 | 3.60 | 5.00 |
| 16 | 8.40 | 6.60 | 4.00 | 20.80 | 5.80 | 9.00 | 41.50 | 40.00 | 4.00 | 8.00 | 3.60 | 15.40 |
| 17 | 6.70 | 5.40 | 3.70 | 16.00 | 4.70 | 14.40 | 36.50 | 32.00 | 7.80 | 6.20 | 3.60 | 16.20 |
| 18 | 9.00 | 5.00 | 3.40 | 11.80 | 4.40 | 22.30 | 29.70 | 30.00 | 14.00 | 5.50 | 3.50 | 11.00 |
| 19 | 12.20 | 5.00 | 3.20 | 9.30 | 5.00 | 23.00 | 25.30 | 26.50 | 37.50 | 5.00 | 3.60 | 9.20 |
| 20 | 10.00 | 4.80 | 3.10 | 7.50 | 6.60 | 15.70 | 31.10 | 26.00 | 43.60 | 4.50 | 3.50 | 7.00 |
| 21 | 8.50 | 4.50 | 4.00 | 8.30 | 10.00 | 11.40 | 33.00 | 23.80 | 40.00 | 4.40 | 3.50 | 5.20 |
| 22 | 6.00 | 4.40 | 4.50 | 13.20 | 14.00 | 9.00 | 25.80 | 20.40 | 29.00 | 4.10 | 3.50 | 4.60 |
| 23 | 5.20 | 4.00 | 4.00 | 14.00 | 48.00 | 13.40 | 18.20 | 15.60 | 21.80 | 3.80 | 3.50 | 4.20 |
| 24 | 4.60 | 4.00 | 3.90 | 12.00 | 58.50 | 10.80 | 12.00 | 13.40 | 15.00 | 4.00 | 3.70 | 4.60 |
| 25 | 5.30 | 4.10 | 3.80 | 14.00 | 54.70 | 9.00 | 10.30 | 20.00 | 10.40 | 3.90 | 6.00 | 5.60 |
| 26 | 5.30 | 4.00 | 5.50 | 12.00 | 42.00 | 8.70 | 9.00 | 23.00 | 8.30 | 3.80 | 6.10 | 7.00 |
| 27 | 5.40 | 4.00 | 28.30 | 9.60 | 33.90 | 7.80 | 6.80 | 17.80 | 7.20 | 4.00 | 5.00 | 7.30 |
| 28 | 5.20 | 3.90 | 36.00 | 8.00 | 27.50 | 9.20 | 5.60 | 15.60 | 7.30 | 3.80 | 4.70 | 12.00 |
| 29 | 4.60 | ------- | 32.00 | 7.00 | 27.20 | 16.60 | 5.40 | 16.40 | 9.00 | 3.60 | 4.50 | 16.00 |
| 30 | 4.60 | ------- | 25.80 | 6.10 | 23.00 | 11.20 | 5.00 | 16.00 | 10.00 | 3.60 | 3.80 | 25.20 |
| 31 | 5.00 | ------- | 19.70 | ------- | 18.00 | ------- | 4.60 | 12.50 | ------- | 3.50 | ------ | 35.50 |
| 1902. | | | | | | | | | | | | |
| 1 | 35.50 | 17.00 | 40.50 | 16.80 | 7.00 | 3.10 | 4.40 | 2.70 | 1.00 | 3.90 | 2.60 | 7.60 |
| 2 | 30.00 | 27.70 | 41.70 | 12.60 | 7.00 | 2.90 | 3.30 | 2.30 | .90 | 4.40 | 2.30 | 20.00 |
| 3 | 22.00 | 39.80 | 39.80 | 10.20 | 5.80 | 2.80 | 2.70 | 2.30 | .90 | 5.80 | 2.00 | 19.20 |
| 4 | 16.60 | 40.30 | 33.50 | 8.00 | 5.80 | 2.60 | 2.40 | 1.80 | .50 | 4.60 | 1.90 | 21.60 |
| 5 | 12.50 | 35.80 | 29.30 | 7.30 | 5.40 | 2.50 | 2.10 | 1.60 | .50 | 4.00 | 1.70 | 19.40 |
| 6 | 9.00 | 26.20 | 23.00 | 10.00 | 5.00 | 2.40 | 1.80 | 1.40 | .80 | 3.60 | 1.70 | 17.80 |
| 7 | 8.00 | 19.00 | 19.90 | 8.80 | 4.50 | 2.30 | 1.60 | 1.80 | .80 | 5.70 | 2.30 | 14.00 |
| 8 | 7.00 | 14.20 | 16.80 | 7.60 | 4.50 | 2.10 | 1.40 | 2.10 | .80 | 6.00 | 2.80 | 11.20 |
| 9 | 6.90 | 11.00 | 13.60 | 8.00 | 4.50 | 2.20 | 1.20 | 2.10 | 1.00 | 5.00 | 3.20 | 9.70 |
| 10 | 6.90 | 9.50 | 12.90 | 8.00 | 4.80 | 2.40 | 3.30 | 1.80 | 1.10 | 3.80 | 3.60 | 7.00 |
| 11 | 6.80 | 8.00 | 12.00 | 8.50 | 4.80 | 2.20 | 2.80 | 1.80 | 4.40 | 3.30 | 3.00 | 6.00 |
| 12 | 6.50 | 7.90 | 11.00 | 11.00 | 4.50 | 2.40 | 2.30 | 3.00 | 5.80 | 3.80 | 2.50 | 5.60 |
| 13 | 6.20 | 7.80 | 10.20 | 11.00 | 4.40 | 2.50 | 2.70 | 3.40 | 3.80 | 7.00 | 2.40 | 6.00 |
| 14 | 5.80 | 7.70 | 9.20 | 9.60 | 5.20 | 2.20 | 3.50 | 2.40 | 3.60 | 8.00 | 2.20 | 16.00 |
| 15 | 5.70 | 7.50 | 8.80 | 8.00 | 5.00 | 1.90 | 2.80 | 1.60 | 2.20 | 6.10 | 2.10 | 15.60 |
| 16 | 5.30 | 6.80 | 8.70 | 7.30 | 6.00 | 1.90 | 2.60 | 1.70 | 1.50 | 5.60 | 1.80 | 11.20 |
| 17 | 5.30 | 7.90 | 11.00 | 6.80 | 6.00 | 2.40 | 2.30 | 2.80 | 1.40 | 4.70 | 1.90 | 9.20 |
| 18 | 5.30 | 9.00 | 20.00 | 6.00 | 5.40 | 8.00 | 2.30 | 2.80 | 1.00 | 3.80 | 1.90 | 9.50 |
| 19 | 5.30 | 9.80 | 17.80 | 5.80 | 6.20 | 7.80 | 2.10 | 2.70 | .90 | 3.00 | 2.00 | 10.00 |
| 20 | 5.30 | 10.00 | 14.00 | 11.00 | 6.50 | 6.00 | 1.60 | 2.40 | .90 | 3.00 | 6.50 | 8.40 |
| 21 | 5.20 | 10.80 | 11.00 | 9.60 | 6.80 | 5.00 | 1.30 | 2.70 | .80 | 2.90 | 6.60 | 7.80 |
| 22 | 11.50 | 12.20 | 9.80 | 8.00 | 5.80 | 3.70 | 1.50 | 2.50 | .70 | 2.50 | 5.20 | 7.80 |
| 23 | 19.80 | 18.50 | 9.00 | 7.30 | 4.40 | 3.00 | 1.30 | 2.20 | .80 | 1.90 | 4.00 | 14.80 |
| 24 | 17.20 | 24.50 | 8.50 | 6.80 | 3.90 | 2.70 | 1.00 | 2.20 | .70 | 2.00 | 3.50 | 14.00 |
| 25 | 12.80 | 26.90 | 8.30 | 6.00 | 3.60 | 2.70 | 1.00 | 2.20 | .50 | 2.00 | 3.00 | 9.80 |
| 26 | 10.00 | 35.30 | 8.00 | 5.80 | 3.80 | 3.40 | 1.70 | 2.10 | 2.00 | 1.70 | 3.70 | 8.60 |
| 27 | 8.00 | 38.30 | 7.70 | 5.70 | 4.80 | 4.40 | 1.60 | 1.70 | 4.60 | 1.60 | 7.00 | 7.00 |
| 28 | 7.50 | 35.00 | 7.20 | 5.40 | 5.00 | 4.40 | 1.10 | 1.40 | 8.60 | 1.70 | 10.00 | 6.20 |
| 29 | 8.20 | ------- | 7.80 | 5.10 | 4.80 | 4.70 | 1.50 | 1.30 | 8.00 | 1.90 | 8.00 | 5.80 |
| 30 | 10.00 | ------- | 15.60 | 6.00 | 4.00 | 5.30 | 1.90 | 1.30 | 6.20 | 1.80 | 5.00 | 5.30 |
| 31 | 12.20 | ------- | 20.00 | ------- | 3.60 | ------- | 1.80 | 1.20 | ------- | 2.80 | ------ | 5.80 |

DAILY GAGE HEIGHT, IN FEET, OF CAPE FEAR RIVER NEAR FAYETTEVILLE, N. C., FOR 1903.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | Day. | Jan. | Feb. | Mar. | Apr. | May. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.80 | 7.60 | 26.20 | 38.80 | 14.70 | 17 | 6.50 | 18.00 | 10.00 | 21.90 | 4.70 |
| 2 | 5.60 | 7.00 | 29.30 | 33.20 | 10.80 | 18 | 6.40 | 33.50 | 9.40 | 17.80 | 4.50 |
| 3 | 8.50 | 6.80 | 26.20 | 25.20 | 9.20 | 19 | 6.10 | 33.00 | 8.70 | 13.20 | 4.20 |
| 4 | 24.00 | 6.60 | 19.40 | 18.00 | 8.00 | 20 | 5.70 | 26.80 | 7.80 | 10.80 | 4.00 |
| 5 | 24.60 | 13.00 | 14.40 | 18.00 | 7.50 | 21 | 7.80 | 21.70 | 7.20 | 9.30 | 4.00 |
| 6 | 20.00 | 23.40 | 12.00 | 17.60 | 7.00 | 22 | 10.00 | 14.00 | 9.80 | 14.30 | 4.00 |
| 7 | 14.80 | 18.80 | 10.20 | 14.00 | 6.80 | 23 | 14.00 | 12.00 | 35.00 | 14.00 | 3.90 |
| 8 | 11.20 | 21.00 | 9.40 | 11.80 | 6.20 | 24 | 12.00 | 9.60 | 49.80 | 18.20 | 3.70 |
| 9 | 8.50 | 31.90 | 8.60 | 17.60 | 6.00 | 25 | 9.50 | 9.00 | 50.50 | 16.00 | 4.00 |
| 10 | 7.80 | 31.00 | 12.80 | 22.40 | 5.80 | 26 | 8.00 | 8.60 | 45.00 | 14.40 | 4.80 |
| 11 | 7.80 | 26.40 | 12.90 | 19.20 | 5.80 | 27 | 7.50 | 8.00 | 35.00 | 24.30 | 4.30 |
| 12 | 7.90 | 28.90 | 11.40 | 14.00 | 5.70 | 28 | 7.00 | 10.00 | 24.20 | 28.60 | 4.00 |
| 13 | 12.00 | 32.40 | 20.00 | 11.80 | 5.50 | 29 | 7.00 | ------- | 18.60 | 24.00 | 4.00 |
| 14 | 12.30 | 28.40 | 22.40 | 12.00 | 5.40 | 30 | 8.50 | ------- | 17.00 | 19.40 | 3.90 |
| 15 | 9.80 | 21.00 | 15.60 | 25.60 | 5.20 | 31 | 8.50 | ------- | 37.70 | ------- | ------- |
| 16 | 7.00 | 17.80 | 12.70 | 28.20 | 5.00 | | | | | | |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1890 TO 1896.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 489 | 5.20 | 2,264 | 9.40 | 4,550 | 13.60 | 7,033 |
| 1.10 | 519 | 5.30 | 2,318 | 9.50 | 4,616 | 13.70 | 7,093 |
| 1.20 | 550 | 5.40 | 2,372 | 9.60 | 4,672 | 13.80 | 7,153 |
| 1.30 | 581 | 5.50 | 2,426 | 9.70 | 4,728 | 13.90 | 7,213 |
| 1.40 | 612 | 5.60 | 2,470 | 9.80 | 4,784 | 14.00 | 7,273 |
| 1.50 | 645 | 5.70 | 2,524 | 9.90 | 4,840 | 14.10 | 7,333 |
| 1.60 | 678 | 5.80 | 2,578 | 10.00 | 4,898 | 14.20 | 7,393 |
| 1.70 | 711 | 5.90 | 2,632 | 10.10 | 4,955 | 14.30 | 7,453 |
| 1.80 | 744 | 6.00 | 2,686 | 10.20 | 5,013 | 14.40 | 7,513 |
| 1.90 | 777 | 6.10 | 2,740 | 10 30 | 5,071 | 14.50 | 7,573 |
| 2.00 | 810 | 6.20 | 2,794 | 10.40 | 5,129 | 14.60 | 7,633 |
| 2.10 | 843 | 6.30 | 2,848 | 10.50 | 5,187 | 14.70 | 7,693 |
| 2.20 | 876 | 6.40 | 2,902 | 10.60 | 5,245 | 14.80 | 7,753 |
| 2.30 | 909 | 6.50 | 2,956 | 10.70 | 5,303 | 14.90 | 7,813 |
| 2.40 | 942 | 6.60 | 3,010 | 10.80 | 5,361 | 15.00 | 7,873 |
| 2.50 | 975 | 6.70 | 3,064 | 10.90 | 5,419 | 15.10 | 7,933 |
| 2.60 | 1,008 | 6.80 | 3,118 | 11.00 | 5,477 | 15.20 | 7,993 |
| 2.70 | 1,041 | 6.90 | 3,172 | 11.10 | 5,535 | 15.30 | 8,053 |
| 2.80 | 1,075 | 7.00 | 3,226 | 11.20 | 5,593 | 15.40 | 8,113 |
| 2.90 | 1,109 | 7.10 | 3,280 | 11.30 | 5,653 | 15.50 | 8,173 |
| 3.00 | 1,145 | 7.20 | 3,334 | 11.40 | 5,713 | 15.60 | 8,233 |
| 3.10 | 1,187 | 7.30 | 3,388 | 11.50 | 5,773 | 15.70 | 8,293 |
| 3.20 | 1,229 | 7.40 | 3,442 | 11.60 | 5,833 | 15.80 | 8,355 |
| 3.30 | 1,273 | 7.50 | 3,496 | 11.70 | 5,893 | 15.90 | 8,417 |
| 3.40 | 1,319 | 7.60 | 3,550 | 11.80 | 5,953 | 16.00 | 8,479 |
| 3.50 | 1,367 | 7.70 | 3,604 | 11.90 | 6,013 | 16.10 | 8,541 |
| 3.60 | 1,417 | 7.80 | 3,658 | 12.00 | 6,073 | 16.20 | 8,603 |
| 3.70 | 1,467 | 7.90 | 3,712 | 12.10 | 6,133 | 16.30 | 8,665 |
| 3.80 | 1,517 | 8.00 | 3,766 | 12.20 | 6,193 | 16.40 | 8,727 |
| 3.90 | 1,567 | 8.10 | 3,822 | 12.30 | 6,253 | 16.50 | 8,789 |
| 4.00 | 1,620 | 8.20 | 3,878 | 12.40 | 6,313 | 16.60 | 8,851 |
| 4.10 | 1,674 | 8.30 | 3,934 | 12.50 | 6,373 | 16.70 | 8,913 |
| 4.20 | 1,728 | 8.40 | 3,990 | 12.60 | 6,433 | 16.80 | 8,975 |
| 4.30 | 1,782 | 8.50 | 4,046 | 12.70 | 6,493 | 16.90 | 9,037 |
| 4.40 | 1,836 | 8.60 | 4,102 | 12.80 | 6,553 | 17 00 | 9,099 |
| 4.50 | 1,890 | 8.70 | 4,158 | 12.90 | 6,613 | 17.10 | 9,161 |
| 4.60 | 1,940 | 8.80 | 4,214 | 13.00 | 6,673 | 17.20 | 9,223 |
| 4.70 | 1,994 | 8.90 | 4,270 | 13.10 | 6,733 | 17.30 | 9,285 |
| 4.80 | 2,048 | 9.00 | 4,326 | 13.20 | 6,793 | 17.40 | 9,347 |
| 4.90 | 2,102 | 9.10 | 4,382 | 13.30 | 6,853 | 17.50 | 9,409 |
| 5.00 | 2,156 | 9.20 | 4,438 | 13.40 | 6,913 | 17.60 | 9,471 |
| 5.10 | 2,210 | 9.30 | 4,494 | 13.50 | 6,973 | 17.70 | 9,533 |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1890–1896—*Continued.*

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 17.80 | 9,595 | 19.00 | 10,339 | 28.00 | 22,441 | 40.00 | 38,749 |
| 17.90 | 9,657 | 19.10 | 10,401 | 29.00 | 23,800 | 41.00 | 40,108 |
| 18.00 | 9,719 | 19.20 | 10,463 | 30.00 | 25,159 | 42.00 | 41,467 |
| 18.10 | 9,781 | 19.30 | 10,525 | 31.00 | 26,458 | 43.00 | 42,826 |
| 18.20 | 9,843 | 20.00 | 11,569 | 32.00 | 27,877 | 44.00 | 44,185 |
| 18.30 | 9,905 | 21.00 | 12,928 | 33.00 | 29,236 | 45.00 | 45,554 |
| 18.40 | 9,967 | 22.00 | 14,287 | 34.00 | 30,595 | 46.00 | 46,903 |
| 18.50 | 10,029 | 23.00 | 15,646 | 35.00 | 31,954 | 47.00 | 48,262 |
| 18.60 | 10,091 | 24.00 | 17,005 | 36.00 | 33,313 | 48.00 | 49,621 |
| 18.70 | 10,153 | 25.00 | 18,364 | 37.00 | 34,672 | 49.00 | 50,980 |
| 18.80 | 10,215 | 26.00 | 19,723 | 38.00 | 36,031 | 50.00 | 52,339 |
| 18.90 | 10,277 | 27.00 | 21,082 | 39.00 | 37,390 | ----- | ------ |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1897 AND 1898.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.0 | 300 | 5.8 | 2,400 | 11.8 | 5,780 | 21.0 | 13,400 |
| 0.1 | 320 | 6.0 | 2,500 | 12.0 | 5,900 | 22.0 | 14,500 |
| 0.2 | 340 | 6.2 | 2,600 | 12.2 | 6,020 | 23.0 | 15,650 |
| 0.4 | 380 | 6.4 | 2,700 | 12.4 | 6,140 | 24.0 | 16,940 |
| 0.6 | 430 | 6.6 | 2,800 | 12.6 | 6,260 | 25.0 | 18,300 |
| 0.8 | 480 | 6.8 | 2,900 | 12.8 | 6,380 | 26.0 | 19,660 |
| 1.0 | 530 | 7.0 | 3,000 | 13.0 | 6,500 | 27.0 | 21,020 |
| 1.2 | 580 | 7.2 | 3,100 | 13.2 | 6,640 | 28.0 | 22,380 |
| 1.4 | 630 | 7.4 | 3,200 | 13.4 | 6,780 | 29.0 | 23,740 |
| 1.6 | 690 | 7.6 | 3,300 | 13.6 | 6,920 | 30.0 | 25,100 |
| 1.8 | 750 | 7.8 | 3,400 | 13.8 | 7,060 | 31.0 | 26,460 |
| 2.0 | 810 | 8.0 | 3,500 | 14.0 | 7,200 | 32.0 | 27,820 |
| 2.2 | 875 | 8.2 | 3,620 | 14.2 | 7,340 | 33.0 | 29,180 |
| 2.4 | 945 | 8.4 | 3,740 | 14.4 | 7,480 | 34.0 | 30,540 |
| 2.6 | 1,020 | 8.6 | 3,860 | 14.6 | 7,620 | 35.0 | 31,900 |
| 2.8 | 1,100 | 8.8 | 3,980 | 14.8 | 7,760 | 36.0 | 33,260 |
| 3.0 | 1,180 | 9.0 | 4,100 | 15.0 | 7,900 | 37.0 | 34,620 |
| 3.2 | 1,260 | 9.2 | 4,220 | 15.2 | 8,040 | 38.0 | 35,980 |
| 3.4 | 1,340 | 9.4 | 4,340 | 15.4 | 8,180 | 39.0 | 37,240 |
| 3.6 | 1,420 | 9.6 | 4,460 | 15.6 | 8,320 | 40.0 | 38,600 |
| 3.8 | 1,500 | 9.8 | 4,580 | 15.8 | 8,460 | 41.0 | 39,960 |
| 4.0 | 1,580 | 10.0 | 4,700 | 16.0 | 8,600 | 42.0 | 41,320 |
| 4.2 | 1,670 | 10.2 | 4,820 | 16.5 | 9,000 | 43.0 | 42,680 |
| 4.4 | 1,760 | 10.4 | 4,940 | 17.0 | 9,400 | 44.0 | 44,040 |
| 4.6 | 1,850 | 10.6 | 5,060 | 17.5 | 9,850 | 45.0 | 45,400 |
| 4.8 | 1,940 | 10.8 | 5,180 | 18.0 | 10,300 | 46.0 | 46,760 |
| 5.0 | 2,030 | 11.0 | 5,300 | 18.5 | 10,800 | 47.0 | 48,120 |
| 5.2 | 2,120 | 11.2 | 5,420 | 19.0 | 11,300 | 48.0 | 49,480 |
| 5.4 | 2,210 | 11.4 | 5,540 | 19.5 | 11,800 | 49.0 | 50,840 |
| 5.6 | 2,300 | 11.6 | 5,660 | 20.0 | 12,300 | 50.0 | 52,300 |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1899 AND 1900.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.4 | 330 | 3.2 | 1,273 | 7.5 | 3,550 | 14.5 | 7,633 |
| 0.6 | 375 | 3.4 | 1,367 | 8.0 | 3,822 | 15.0 | 7,933 |
| 0.8 | 429 | 3.6 | 1,467 | 8.5 | 4,102 | 16.0 | 8,541 |
| 1.0 | 489 | 3.8 | 1,567 | 9.0 | 4,382 | 17.0 | 9,161 |
| 1.2 | 550 | 4.0 | 1,674 | 9.5 | 4,672 | 18.0 | 9,787 |
| 1.4 | 612 | 4.2 | 1,782 | 10.0 | 4,955 | 19.0 | 10,401 |
| 1.6 | 678 | 4.4 | 1,890 | 10.5 | 5,245 | 20.0 | 11,569 |
| 1.8 | 744 | 4.6 | 1,994 | 11.0 | 5,535 | 25.0 | 18,364 |
| 2.0 | 810 | 4.8 | 2,102 | 11.5 | 5,833 | 30.0 | 25,159 |
| 2.2 | 876 | 5.0 | 2,210 | 12.0 | 6,133 | 35.0 | 33,600 |
| 2.4 | 946 | 5.5 | 2,470 | 12.5 | 6,433 | 40.0 | 44,000 |
| 2.6 | 1,022 | 6.0 | 2,740 | 13.0 | 6,733 | 45.0 | 54,500 |
| 2.8 | 1,103 | 6.5 | 3,010 | 13.5 | 7,033 | 50.0 | 65,000 |
| 3.0 | 1,187 | 7.0 | 3,280 | 14.0 | 7,333 | ---- | ------ |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 3.5 | 1,400 | 6.0 | 2,400 | 13.0 | 5,800 | 26.0 | 14,250 |
| 3.6 | 1,440 | 6.2 | 2,480 | 13.5 | 6,075 | 27.0 | 15,150 |
| 3.7 | 1,480 | 6.4 | 2,560 | 14.0 | 6,350 | 28.0 | 16,300 |
| 3.8 | 1,520 | 6.6 | 2,640 | 14.5 | 6,625 | 29.0 | 17,450 |
| 3.9 | 1,560 | 6.8 | 2,720 | 15.0 | 6,900 | 30.0 | 18,600 |
| 4.0 | 1,600 | 7.0 | 2,800 | 15.5 | 7,175 | 31.0 | 20,050 |
| 4.1 | 1,640 | 7.2 | 2,880 | 16.0 | 7,450 | 32.0 | 21,500 |
| 4.2 | 1,680 | 7.4 | 2,960 | 16.5 | 7,725 | 33.0 | 22,950 |
| 4.3 | 1,720 | 7.6 | 3,050 | 17.0 | 8,000 | 34.0 | 24,650 |
| 4.4 | 1,760 | 7.8 | 3,150 | 17.5 | 8,275 | 35.0 | 26,350 |
| 4.5 | 1,800 | 8.0 | 3,250 | 18.0 | 8,550 | 36.0 | 28,050 |
| 4.6 | 1,840 | 8.5 | 3,500 | 18.5 | 8,875 | 37.0 | 29,800 |
| 4.7 | 1,880 | 9.0 | 3,750 | 19.0 | 9,200 | 38.0 | 31,550 |
| 4.8 | 1,920 | 9.5 | 4,000 | 19.5 | 9,525 | 39.0 | 33,300 |
| 4.9 | 1,960 | 10.0 | 4,250 | 20.0 | 9,850 | 40.0 | 35,050 |
| 5.0 | 2,000 | 10.5 | 4,500 | 21.0 | 10,500 | 41.0 | 36,800 |
| 5.2 | 2,080 | 11.0 | 4,750 | 22.0 | 11,150 | 42.0 | 38,550 |
| 5.4 | 2,160 | 11.5 | 5,000 | 23.0 | 11,800 | ---- | ------ |
| 5.6 | 2,240 | 12.0 | 5,250 | 24.0 | 12,450 | ---- | ------ |
| 5.8 | 2,320 | 12.5 | 5,525 | 25.0 | 13,350 | ---- | ------ |

RATING TABLE FOR CAPE FEAR RIVER AT FAYETTEVILLE, N. C., FOR 1902 AND 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet) | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.5 | 450 | 3.8 | 1,620 | 7.2 | 3,048 | 14.5 | 6,650 |
| 0.6 | 480 | 4.0 | 1,700 | 7.4 | 3,136 | 15.0 | 6,900 |
| 0.8 | 540 | 4.2 | 1,780 | 7.6 | 3,224 | 15.5 | 7,150 |
| 1.0 | 600 | 4.4 | 1,860 | 7.8 | 3,312 | 16.0 | 7,450 |
| 1.2 | 660 | 4.6 | 1,940 | 8.0 | 3,400 | 16.5 | 7,725 |
| 1.4 | 720 | 4.8 | 2,020 | 8.5 | 3,650 | 17.0 | 8,000 |
| 1.6 | 780 | 5.0 | 2,100 | 9.0 | 3,900 | 17.5 | 8,275 |
| 1.8 | 840 | 5.2 | 2,180 | 9.5 | 4,150 | 18.0 | 8,550 |
| 2.0 | 900 | 5.4 | 2,260 | 10.0 | 4,400 | 19.0 | 9,200 |
| 2.2 | 980 | 5.6 | 2,344 | 10.5 | 4,650 | 20.0 | 9,850 |
| 2.4 | 1,060 | 5.8 | 2,432 | 11.0 | 4,900 | 25.0 | 13,350 |
| 2.6 | 1,140 | 6.0 | 2,520 | 11.5 | 5,150 | 30.0 | 18,600 |
| 2.8 | 1,220 | 6.2 | 2,608 | 12.0 | 5,400 | 35.0 | 26,350 |
| 3.0 | 1,300 | 6.4 | 2,696 | 12.5 | 5,650 | 40.0 | 35,050 |
| 3.2 | 1,380 | 6.6 | 2,784 | 13.0 | 5,900 | 45.0 | 43,800 |
| 3.4 | 1,460 | 6.8 | 2,872 | 13.5 | 6,150 | 50.0 | 53,550 |
| 3.6 | 1,540 | 7.0 | 2,960 | 14.0 | 6,400 | ---- | ------ |

ESTIMATED MONTHLY DISCHARGE OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C.

[Drainage area, 4,493 square miles.]

NOTE.—For the years 1889 to 1900, inclusive, the discharge curve above 30 feet gage height is not well determined. The discharges above 30 feet gage height are, therefore, approximate for those years. The first discharge measurement was made in 1895. The computed discharges for 1889 to 1892, inclusive, are from measurements made during the years 1895 to 1899. The bed of the stream is believed to have changed but little from 1889 to 1899.

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1889. | | | | | | |
| January | 41,250 | 3,570 | 17,373 | 3.87 | 4.46 | 6.11 |
| February | 53,250 | 4,500 | 17,244 | 3.84 | 4.00 | 3.94 |
| March | 14,660 | 2,000 | 5,441 | 1.21 | 1.39 | 2.99 |
| April | 13,610 | 1,910 | 5,395 | 1.20 | 1.34 | 3.69 |
| May | 6,580 | 1,042 | 1,978 | .44 | .51 | 4.85 |
| June | 46,050 | 1,910 | 7,082 | 1.58 | 1.76 | 4.27 |
| July | 58,150 | 2,805 | 20,784 | 4.63 | 5.33 | 10.38 |
| August | 56,150 | 2,385 | 15,881 | 3.53 | 4.07 | 6.60 |
| September | 8,180 | 2,135 | 3,452 | .77 | .85 | 3.20 |
| October | 18,910 | 1,108 | 3,348 | .75 | .86 | 3.36 |
| November | 29,350 | 2,695 | 7,834 | 1.74 | 1.94 | 4.31 |
| December | 8,180 | 1,515 | 2,451 | .54 | .63 | .59 |
| The year | 58,150 | 1,108 | 9,022 | 2.01 | 27.14 | 54.29 |
| 1890. | | | | | | |
| January | 3,245 | 1,515 | 1,921 | 0.43 | 0.49 | 1.93 |
| February | 13,610 | 1,730 | 5,073 | 1.13 | 1.16 | 3.77 |
| March | 16,970 | 3,050 | 7,381 | 1.64 | 1.89 | 2.71 |
| April | 8,580 | 2,485 | 3,948 | .88 | .98 | 2.20 |
| May | 8,660 | 1,275 | 3,666 | .82 | .94 | 4.93 |
| June | 5,780 | 1,075 | 2,435 | .54 | .62 | 3.51 |
| July | 13,610 | 550 | 2,763 | .62 | .71 | 6.08 |
| August | 18,360 | 1,820 | 7,898 | 1.77 | 2.04 | 3.18 |
| September | 26,190 | 1,475 | 5,397 | 1.20 | 1.34 | 5.34 |
| October | 16,550 | 1,275 | 3,775 | .84 | .97 | 5.31 |
| November | 4,350 | 1,555 | 3,125 | .70 | .78 | .22 |
| December | 13,820 | 1,730 | 4,368 | .97 | 1.12 | 4.15 |
| The year | 26,190 | 550 | 4,312 | .96 | 13.04 | 43.33 |
| 1891. | | | | | | |
| January | 14,870 | 2,920 | 6,994 | 1.56 | 1.79 | 5.13 |
| February | 44,030 | 3,570 | 10,419 | 2.32 | 2.41 | 5.12 |
| March | 48,450 | 5,140 | 14,955 | 3.33 | 3.84 | 7.89 |
| April | 13,610 | 2,585 | 6,595 | 1.47 | 1.64 | 2.50 |
| May | 58,400 | 1,775 | 9,274 | 2.06 | 2.38 | 7.86 |
| June | 28,270 | 1,515 | 5,839 | 1.29 | 1.43 | 3.43 |
| July | 9,060 | 1,775 | 3,925 | .87 | 1.00 | 7.31 |
| August | 53,490 | 1,955 | 15,851 | 3.53 | 4.07 | 9.13 |
| September | 20,236 | 1,730 | 4,864 | 1.08 | 1.21 | 1.36 |
| October | 4,350 | 1,315 | 2,301 | .51 | .59 | 1.93 |
| November | 5,140 | 1,174 | 1,660 | .37 | .41 | 2.98 |
| December | 7,460 | 2,695 | 3,501 | .78 | .90 | 1.84 |
| The year | 58,400 | 1,174 | 7,181 | 1.60 | 21.67 | 56.48 |

ESTIMATED MONTHLY DISCHARGE OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C.—*Continued.*

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1892. | | | | | | |
| January | 69,700 | 2,920 | 14,162 | 3.15 | 3.63 | 6.28 |
| February | 18,470 | 2,920 | 4,676 | 1.04 | 1.12 | 3.20 |
| March | 20,362 | 2,805 | 5,881 | 1.31 | 1.51 | 2.93 |
| April | 34,090 | 3,440 | 8,090 | 1.80 | 2.01 | 2.56 |
| May | 8,500 | 2,885 | 3,437 | .76 | .88 | 4.05 |
| June | 13,610 | 1,865 | 5,506 | 1.23 | 1.37 | 5.90 |
| July | 11,010 | 1,475 | 5,336 | 1.19 | 1.37 | 5.75 |
| August | 2,285 | 440 | 1,410 | .31 | .36 | 2.95 |
| September | 3,180 | 464 | 1,294 | .29 | .32 | 2.33 |
| October | 976 | 440 | 604 | .13 | .15 | .46 |
| November | 3,245 | 440 | 1,413 | .31 | .35 | 3.60 |
| December | 8,500 | 700 | 2,054 | .46 | .53 | 2.95 |
| The year | 69,700 | 440 | 4,488 | 1.00 | 13.60 | 42.96 |
| 1893. | | | | | | |
| January | 16,461 | 1,145 | 3,865 | 0.86 | 0.99 | 2.81 |
| February | 41,873 | 3,010 | 18,596 | 4.14 | 4.31 | 6.11 |
| March | 12,453 | 2,264 | 4,356 | .97 | 1.12 | 1.48 |
| April | 3,334 | 1,517 | 2,211 | .49 | .55 | 2.03 |
| May | 27,137 | 1,145 | 3,046 | .68 | .78 | 5.31 |
| June | 16,627 | 1,367 | 3,619 | .80 | .89 | 5.38 |
| July | 2,470 | 519 | 1,063 | .24 | .28 | 3.13 |
| August | 19,587 | 550 | 2,798 | .62 | .71 | 7.52 |
| September | 37,390 | 1,417 | 9,341 | 2.08 | 2.32 | 5.81 |
| October | 41,467 | 1,417 | 8,454 | 1.88 | 2.17 | 6.56 |
| November | 6,613 | 1,890 | 2,692 | .60 | .67 | 1.70 |
| December | 19,723 | 2,578 | 5,750 | 1.28 | 1.48 | 2.93 |
| The year | 41,873 | 519 | 5,483 | 1.22 | 16.27 | 50.77 |
| 1894. | | | | | | |
| January | 21,082 | 2,740 | 6,911 | 1.54 | 1.78 | 4.03 |
| February | 22,441 | 3,766 | 7,820 | 1.74 | 1.81 | 3.67 |
| March | 22,712 | 2,686 | 5,973 | 1.33 | 1.53 | 1.51 |
| April | 4,102 | 1,367 | 2,207 | .49 | .55 | 1.61 |
| May | 5,245 | 1,229 | 2,418 | .54 | .62 | 4.48 |
| June | 3,384 | 489 | 1,006 | .22 | .25 | 2.33 |
| July | 7,393 | 678 | 1,911 | .43 | .48 | 6.34 |
| August | 31,137 | 1,417 | 7,193 | 1.60 | 1.84 | 5.50 |
| September | 9,099 | 612 | 2,330 | .55 | .61 | 5.69 |
| October | 49,485 | 2,318 | 9,770 | 1.95 | 2.25 | 6.76 |
| November | 11,569 | 1,940 | 3,779 | .83 | .92 | 1.75 |
| December | 9,967 | 1,674 | 3,386 | .75 | .86 | 2.85 |
| The year | 49,485 | 489 | 4,559 | 1.00 | 13.40 | 46.53 |
| 1895. | | | | | | |
| January | 90,650 | 2,632 | 18,334 | 4.08 | 4.70 | 7.36 |
| February | 22,441 | 4,214 | 9,299 | 2.07 | 2.15 | 2.38 |
| March | 40,108 | 4,550 | 13,867 | 3.09 | 3.56 | 5.71 |
| April | 49,213 | 3,990 | 15,646 | 3.48 | 3.89 | 9.21 |
| May | 44,728 | 3,280 | 5,500 | 1.22 | 1.41 | 3.64 |
| June | 6,193 | 1,620 | 2,912 | .65 | .72 | 4.08 |
| July | 12,928 | 1,728 | 3,833 | .85 | .98 | 5.66 |
| August | 11,840 | 1,187 | 3,439 | .76 | .87 | 5.29 |
| September | 2,156 | 581 | 1,232 | .27 | .30 | .62 |
| October | 810 | 399 | 608 | .14 | .16 | 1.70 |
| November | 4,270 | 1,075 | 1,833 | .41 | .46 | 3.26 |
| December | 10,029 | 1,008 | 2,737 | .61 | .70 | 3.88 |
| The year | 90,650 | 399 | 6,603 | 1.48 | 19.90 | 52.79 |

ESTIMATED MONTHLY DISCHARGE OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C.—*Continued.*

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1896. | | | | | | |
| January | 19,723 | 1,620 | 6,273 | 1.40 | 1.61 | 2.78 |
| February | 49,621 | 2,956 | 14,436 | 3.21 | 3.46 | 6.63 |
| March | 5,477 | 2,318 | 3,498 | .78 | .90 | 2.27 |
| April | 14,287 | 1,367 | 3,216 | .72 | .80 | 1.62 |
| May | 6,553 | 843 | 2,774 | .62 | .71 | 4.88 |
| June | 11,569 | 1,041 | 3,593 | .80 | .89 | 6.94 |
| July | 52,340 | 1,319 | 10,827 | 2.41 | 2.78 | 7.11 |
| August | 1,782 | 612 | 1,116 | .25 | .29 | 1.67 |
| September | 4,616 | 430 | 1,435 | .32 | .36 | 7.59 |
| October | 26,458 | 843 | 3,210 | .71 | .82 | 1.42 |
| November | 10,339 | 975 | 2,435 | .54 | .60 | 4.03 |
| December | 8,113 | 1,940 | 4,058 | .90 | 1.04 | 2.14 |
| The year | 52,340 | 430 | 4,739 | 1.06 | 14.26 | 49.08 |
| 1897. | | | | | | |
| January | 17,688 | 1,580 | 3,694 | 0.82 | 0.94 | 2.29 |
| February | 33,688 | 2,255 | 12,802 | 2.85 | 2.97 | 5.23 |
| March | 35,708 | 3,100 | 12,233 | 2.72 | 3.14 | 4.79 |
| April | 22,788 | 1,760 | 6,871 | 1.53 | 1.71 | 3.46 |
| May | 9,760 | 1,580 | 3,191 | .71 | .82 | 4.58 |
| June | 3,860 | 750 | 1,833 | .41 | .46 | 3.34 |
| July | 18,708 | 780 | 3,180 | .71 | .82 | 6.63 |
| August | 2,900 | 875 | 1,570 | .35 | .40 | 3.74 |
| September | 1,850 | 360 | 664 | .15 | .17 | 1.68 |
| October | 875 | 340 | 517 | .12 | .14 | 2.25 |
| November | 4,520 | 630 | 1,281 | .29 | .32 | 3.82 |
| December | 4,700 | 1,180 | 2,165 | .48 | .55 | 2.56 |
| The year | 35,708 | 340 | 4,166 | .93 | 12.44 | 44.37 |
| 1898. | | | | | | |
| January | 7,333 | 1,319 | 2,126 | 0.47 | 0.54 | 2.00 |
| February | 2,740 | 1,145 | 1,735 | .39 | .41 | .92 |
| March | 12,249 | 1,273 | 3,303 | .74 | .85 | 4.38 |
| April | 13,608 | 1,620 | 4,395 | .98 | 1.09 | 3.38 |
| May | 6,133 | 1,145 | 2,369 | .53 | .61 | 3.68 |
| June | 3,280 | 519 | 1,181 | .26 | .29 | 2.92 |
| July | 8,665 | 489 | 2,793 | .62 | .71 | 5.68 |
| August | 24,072 | 910 | 5,655 | 1.26 | 1.45 | 7.80 |
| September | 10,277 | 876 | 3,674 | .82 | .91 | 3.79 |
| October | 4,955 | 612 | 1,739 | .39 | .45 | 4.30 |
| November | 7,333 | 1,417 | 2,982 | .66 | .73 | 3.16 |
| December | 9,781 | 1,994 | 3,387 | .75 | .86 | 2.17 |
| The year | 24,072 | 489 | 2,945 | .66 | 8.90 | 44.18 |
| 1899. | | | | | | |
| January | 16,462 | 1,940 | 5,116 | 1.14 | 1.31 | 4.02 |
| February | 69,200 | 4,955 | 25,842 | 5.75 | 5.98 | 8.31 |
| March | 48,200 | 4,214 | 17,042 | 3.79 | 4.31 | 6.85 |
| April | 34,600 | 3,064 | 8,408 | 1.87 | 2.09 | 3.17 |
| May | 9,347 | 1,782 | 3,706 | .82 | .85 | 4.01 |
| June | 5,593 | 984 | 2,280 | .51 | .57 | 3.37 |
| July | 6,613 | 910 | 2,481 | .55 | .63 | 6.79 |
| August | 5,833 | 645 | 1,947 | .43 | .44 | 2.14 |
| September | 2,578 | 612 | 1,133 | .25 | .28 | 3.58 |
| October | 9,161 | 612 | 2,132 | .47 | .54 | 4.65 |
| November | 13,482 | 1,319 | 3,151 | .70 | .78 | 1.89 |
| December | 7,333 | 1,674 | 2,992 | .67 | .77 | 3.24 |
| The year | 69,200 | 612 | 6,352 | 1.41 | 18.65 | 52.02 |

ESTIMATED MONTHLY DISCHARGE OF CAPE FEAR RIVER AT FAYETTEVILLE, N. C.—*Continued.*

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1900. | | | | | | |
| January | 13,336 | 1,620 | 4,001 | 0.89 | 1.03 | 2.47 |
| February | 35,600 | 1,890 | 10,058 | 2.24 | 2.33 | 5.20 |
| March | 31,060 | 3,280 | 8,649 | 1.92 | 2.21 | 4.53 |
| April | 52,400 | 2,524 | 11,848 | 2.64 | 2.94 | 4.68 |
| May | 9,781 | 1,467 | 2,969 | .66 | .76 | 3.04 |
| June | 9,409 | 984 | 2,688 | .60 | .67 | 5.50 |
| July | 6,133 | 459 | 1,472 | .33 | .38 | 3.49 |
| August | 1,940 | 350 | 736 | .16 | .18 | 3.00 |
| September | 5,187 | 310 | 1,010 | .22 | .25 | 2.74 |
| October | 1,145 | 375 | 526 | .12 | .14 | 2.18 |
| November | 6,433 | 350 | 1,258 | .28 | .31 | 3.77 |
| December | 8,541 | 843 | 2,816 | .63 | .73 | 4.20 |
| The year | 52,400 | 310 | 4,003 | .89 | 11.93 | 44.80 |
| 1901. | | | | | | |
| January | 7,120 | 1,600 | 3,048 | 0.68 | 0.78 | 2.47 |
| February | 4,850 | 1,560 | 2,659 | .59 | .61 | 1.68 |
| March | 28,050 | 1,200 | 4,209 | .94 | 1.08 | 3.88 |
| April | 49,065 | 2,440 | 9,624 | 2.14 | 2.39 | 5.34 |
| May | 71,625 | 1,560 | 11,502 | 2.56 | 2.95 | 8.75 |
| June | 11,800 | 1,760 | 4,352 | .97 | 1.08 | 5.68 |
| July | 37,675 | 1,520 | 8,072 | 1.80 | 2.08 | 8.11 |
| August | 43,450 | 1,440 | 13,965 | 3.11 | 3.59 | 11.85 |
| September | 41,350 | 1,600 | 7,296 | 1.62 | 1.81 | 5.47 |
| October | 4,450 | 1,400 | 2,342 | .52 | .60 | 1.13 |
| November | 2,440 | 1,400 | 1,555 | .35 | .39 | 1.34 |
| December | 27,200 | 1,440 | 3,828 | .85 | .98 | 5.18 |
| The year | 71,625 | 1,200 | 6,038 | 1.34 | 18.34 | 60.88 |
| 1902. | | | | | | |
| January | 27,200 | 2,180 | 5,353 | 1.19 | 1.37 | 2.35 |
| February | 35,575 | 2,872 | 11,746 | 2.61 | 2.72 | 5.73 |
| March | 37,825 | 3,048 | 9,612 | 2.14 | 2.47 | 3.16 |
| April | 7,890 | 2,140 | 3,695 | .82 | .91 | 3.18 |
| May | 2,960 | 1,540 | 2,159 | .48 | .55 | 2.63 |
| June | 3,400 | 870 | 1,466 | .33 | .37 | 3.46 |
| July | 1,860 | 600 | 965 | .21 | .24 | 2.88 |
| August | 1,460 | 660 | 961 | .21 | .24 | 3.59 |
| September | 3,700 | 450 | 1,074 | .24 | .27 | 5.24 |
| October | 3,400 | 780 | 1,633 | .36 | .42 | 3.26 |
| November | 4,400 | 810 | 1,540 | .34 | .38 | 3.64 |
| December | 10,890 | 2,220 | 4,956 | 1.10 | 1.27 | 3.67 |
| The year | 37,825 | 450 | 3,763 | .84 | 11.21 | 42.79 |

### HAW RIVER AT MONCURE, N. C.

This station is located about one and three-fourths miles north of Moncure, Chatham County, North Carolina, at the bridge of the Seaboard Air Line which crosses the river here, and about two miles above the junction with the Deep River to form the Cape Fear.

The station was established May 6, 1898, and was discontinued at the end of 1899.

DISCHARGE MEASUREMENTS OF HAW RIVER AT MONCURE, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1898. | | | |
| May 6 | E. W. Myers | 1.56 | 495 |
| Aug. 19 | do | 15.40 | 7,925 |
| 1899. | | | |
| Feb. 4 | E. W. Myers | 8.96 | 5,594 |
| May 26 | do | 2.20 | 751 |
| June 5 | do | 2.99 | 1,275 |
| Oct. 12 | do | 1.85 | 756 |
| Nov. 26 | do | 1.37 | 358 |

DAILY GAGE HEIGHT, IN FEET, OF HAW RIVER AT MONCURE, N. C., FOR 1898.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 2.16 | 1.88 | 1.88 | 4.12 | 1.60 | 5.34 | 3.24 |
| 2 | ---------- | 2.10 | 1.65 | 1.96 | 3.18 | 1.48 | 4.28 | 2.88 |
| 3 | ---------- | 1.92 | 1.60 | 1.86 | 2.38 | 1.66 | 3.44 | 2.52 |
| 4 | ---------- | 1.85 | 1.40 | 1.80 | 7.40 | 1.38 | 2.62 | 6.62 |
| 5 | ---------- | 1.50 | 1.20 | 1.60 | 11.88 | 2.00 | 2.55 | 7.44 |
| 6 | 1.30 | 1.60 | 1.80 | 1.60 | 7.78 | 2.86 | 2.12 | 6.48 |
| 7 | 5.00 | 1.50 | 7.38 | 1.62 | 5.22 | 2.94 | 2.10 | 5.20 |
| 8 | 4.50 | 1.52 | 3.12 | 1.50 | 5.46 | 2.86 | 3.00 | 4.26 |
| 9 | 3.65 | 1.60 | 2.30 | 1.22 | 4.45 | 1.72 | 2.76 | 3.28 |
| 10 | 3.00 | 1.50 | 1.90 | 1.20 | 3.74 | 1.48 | 2.25 | 3.16 |
| 11 | 2.50 | 1.44 | 2.00 | 1.30 | 2.32 | 1.54 | 2.42 | 2.94 |
| 12 | 2.23 | 1.40 | 1.38 | 1.76 | 2.10 | 1.60 | 2.12 | 2.25 |
| 13 | 1.87 | 1.40 | 1.40 | 2.70 | 2.04 | 1.52 | 2.38 | 2.54 |
| 14 | 3.10 | 1.30 | 1.70 | 5.98 | 1.64 | 1.50 | 2.67 | 2.40 |
| 15 | 2.60 | 2.10 | 1.85 | 5.30 | 1.65 | 1.51 | 3.24 | 2.36 |
| 16 | 2.00 | 3.10 | 1.60 | 3.00 | 1.60 | 1.34 | 3.00 | 2.22 |
| 17 | 2.30 | 1.70 | 1.60 | 2.94 | 1.62 | 1.23 | 5.23 | 2.20 |
| 18 | 2.20 | 1.70 | 5.60 | 3.86 | 1.65 | 1.66 | 6.44 | 2.34 |
| 19 | 2.22 | 2.30 | 3.40 | 10.30 | 1.62 | 2.65 | 6.08 | 2.12 |
| 20 | 2.00 | 2.96 | 4.10 | 15.85 | 1.64 | 1.27 | 5.62 | 2.78 |
| 21 | 1.80 | 3.34 | 2.44 | 14.92 | 1.46 | 1.94 | 4.28 | 2.41 |
| 22 | 1.74 | 2.60 | 1.92 | 10.64 | 1.44 | 7.64 | 3.84 | 2.22 |
| 23 | 1.60 | 2.10 | 4.98 | 7.25 | 11.35 | 5.56 | 3.02 | 3.46 |
| 24 | 8.20 | 1.22 | 2.80 | 5.18 | 9.14 | 3.28 | 2.84 | 3.21 |
| 25 | 6.14 | 1.30 | 2.34 | 3.32 | 5.28 | 2.42 | 2.06 | 3.34 |
| 26 | 4.46 | 1.64 | 2.12 | 2.14 | 4.00 | 2.50 | 2.00 | 2.78 |
| 27 | 4.00 | 1.52 | 1.90 | 2.18 | 2.64 | 2.14 | 2.48 | 2.37 |
| 28 | 3.10 | 1.58 | 2.38 | 2.25 | 2.32 | 2.22 | 2.92 | 2.30 |
| 29 | 2.42 | 1.85 | 2.10 | 2.38 | 1.88 | 1.88 | 2.58 | 2.48 |
| 30 | 2.00 | 1.90 | 2.16 | 7.14 | 1.52 | 7.16 | 2.92 | 2.36 |
| 31 | 2.00 | ---------- | 1.98 | 4.97 | ---------- | 9.98 | ---------- | 2.34 |

DAILY GAGE HEIGHT, IN FEET, OF HAW RIVER AT MONCURE, N. C., FOR 1899.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.03 | 4.98 | 15.70 | 5.54 | 2.94 | 2.62 | 1.43 | 4.16 | 1.07 | 1.04 | 10.53 | 1.28 |
| 2 | 3.68 | 4.48 | 9.06 | 4.68 | 2.70 | 2.60 | 1.31 | 3.42 | .96 | 1.02 | 6.87 | 1.16 |
| 3 | 3.30 | 4.30 | 9.98 | 4.46 | 2.60 | 3.94 | 1.20 | 2.68 | .91 | .82 | 3.96 | 1.54 |
| 4 | 2.86 | 8.70 | 15.66 | 3.92 | 2.42 | 3.56 | 1.18 | 2.26 | 1.04 | .82 | 4.61 | 1.52 |
| 5 | 2.84 | 16.40 | 18.48 | 3.86 | 2.38 | 2.98 | 7.90 | 1.48 | 1.02 | .85 | 3.54 | 1.48 |
| 6 | 2.48 | 22.42 | 14.84 | 8.84 | 2.44 | 2.20 | 2.24 | 1.42 | 1.03 | 7.65 | 2.66 | 1.32 |
| 7 | 12.08 | 24.66 | 13.56 | 4.86 | 1.98 | 1.84 | 2.08 | 4.85 | .98 | 5.62 | 2.09 | 1.30 |
| 8 | 10.32 | 26.13 | 9.41 | 11.12 | 7.86 | 1.62 | 2.22 | 4.92 | .98 | 7.37 | 1.64 | 1.12 |
| 9 | 8.62 | 26.62 | 6.68 | 13.42 | 6.14 | 1.40 | 1.22 | 4.90 | 1.00 | 5.98 | 1.67 | 1.06 |
| 10 | 4.98 | 17.70 | 5.16 | 7.08 | 4.50 | 1.52 | 1.04 | 4.46 | 2.51 | 4.13 | 1.62 | 1.12 |
| 11 | 3.84 | 12.34 | 4.52 | 5.98 | 4.42 | 2.45 | 1.70 | 2.02 | 2.84 | 2.97 | 1.57 | 1.22 |
| 12 | 3.62 | 6.92 | 4.34 | 4.64 | 4.98 | 5.18 | 1.46 | 1.56 | 3.40 | 1.80 | 1.57 | 3.12 |
| 13 | 3.94 | 6.62 | 4.06 | 4.12 | 8.06 | 4.44 | 1.38 | 1.58 | 1.70 | 1.62 | 1.33 | 1.84 |
| 14 | 5.14 | 5.84 | 6.34 | 3.70 | 8.62 | 4.12 | 1.20 | 1.20 | 1.90 | 1.35 | 1.31 | 1.82 |
| 15 | 11.62 | 5.46 | 22.07 | 3.38 | 5.04 | 2.94 | 1.30 | 1.14 | 1.24 | 1.29 | 1.43 | 1.68 |
| 16 | 7.96 | 7.42 | 23.36 | 3.62 | 4.10 | 2.55 | 1.23 | 1.80 | 1.20 | 1.34 | 1.15 | 1.36 |
| 17 | 6.88 | 18.92 | 17.18 | 3.08 | 3.86 | 2.40 | 1.14 | 1.52 | 1.16 | 1.11 | 1.08 | 1.52 |
| 18 | 5.04 | 18.38 | 8.62 | 2.95 | 2.90 | 1.72 | 1.32 | 1.26 | 1.12 | 1.29 | 1.32 | 1.48 |
| 19 | 4.44 | 18.41 | 14.93 | 2.82 | 2.92 | 1.60 | 1.34 | 1.42 | 1.98 | 1.24 | 1.42 | 1.44 |
| 20 | 3.70 | 14.72 | 14.34 | 2.70 | 2.86 | 1.62 | 1.28 | 1.06 | 1.02 | 1.21 | 1.44 | 1.28 |
| 21 | 4.16 | 11.62 | 10.98 | 2.80 | 2.00 | 1.54 | 1.30 | 1.04 | 1.07 | 1.22 | 1.40 | 1.32 |
| 22 | 2.90 | 9.18 | 7.61 | 2.64 | 1.92 | 1.33 | 1.36 | .92 | 1.46 | 1.20 | 1.38 | 1.26 |
| 23 | 2.98 | 8.26 | 5.44 | 3.44 | 2.94 | 1.59 | 1.34 | .90 | 1.18 | 1.07 | 1.43 | 1.18 |
| 24 | 3.08 | 7.28 | 4.92 | 2.40 | 2.96 | 1.48 | 1.23 | 1.08 | 1.08 | .94 | 1.26 | 1.54 |
| 25 | 3.16 | 5.40 | 4.72 | 2.42 | 2.62 | 1.36 | 1.28 | 1.08 | 2.04 | .94 | 1.28 | 1.56 |
| 26 | 3.18 | 6.18 | 4.62 | 4.84 | 2.32 | 1.30 | 1.50 | 1.30 | 1.38 | 1.13 | 1.32 | 1.52 |
| 27 | 3.15 | 6.84 | 4.07 | 5.08 | 2.06 | 1.20 | 7.14 | .92 | 1.24 | 1.17 | 1.98 | 1.38 |
| 28 | 3.10 | 13.58 | 6.34 | 4.10 | 1.90 | 1.38 | 6.30 | 1.00 | 1.06 | 1.04 | 2.84 | 1.32 |
| 29 | 2.50 | ------- | 10.58 | 3.52 | 1.84 | 1.10 | 3.48 | 1.06 | 1.09 | 1.19 | 2.90 | 1.24 |
| 30 | 3.32 | ------- | 7.46 | 2.98 | 2.20 | 1.54 | 2.02 | 1.40 | .98 | 1.92 | 2.56 | 1.14 |
| 31 | 3.98 | ------- | 6.34 | ------- | 3.16 | ------- | 5.68 | 1.18 | ------- | 3.46 | ------ | 2.38 |

RATING TABLE FOR HAW RIVER AT MONCURE, N. C., FOR 1898 AND 1899.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 290 | 3.4 | 1,690 | 7.0 | 4,760 | 13.0 | 10,600 |
| 1.2 | 350 | 3.6 | 1,850 | 7.5 | 5,210 | 13.5 | 11,100 |
| 1.4 | 415 | 3.8 | 2,010 | 8.0 | 5,660 | 14.0 | 11,600 |
| 1.6 | 500 | 4.0 | 2,170 | 8.5 | 6,110 | 14.5 | 12,100 |
| 1.8 | 600 | 4.2 | 2,340 | 9.0 | 6,600 | 15.0 | 12,600 |
| 2.0 | 700 | 4.4 | 2,510 | 9.5 | 7,100 | 16.0 | 13,600 |
| 2.2 | 820 | 4.6 | 2,680 | 10.0 | 7,600 | 17.0 | 14,600 |
| 2.4 | 950 | 4.8 | 2,850 | 10.5 | 8,100 | 18.0 | 15,600 |
| 2.6 | 1,090 | 5.0 | 3,020 | 11.0 | 8,600 | 19.0 | 16,600 |
| 2.8 | 1,230 | 5.5 | 3,445 | 11.5 | 9,100 | 20.0 | 17,600 |
| 3.0 | 1,370 | 6.0 | 3,870 | 12.0 | 9,600 | 25.0 | 22,600 |
| 3.2 | 1,530 | 6.5 | 4,310 | 12.5 | 10,100 | ---- | ------ |

ESTIMATED MONTHLY DISCHARGE OF HAW RIVER AT MONCURE, N. C.

[Drainage area, 1,800 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1898. | | | | | | |
| May, 26 days | 5,795 | 380 | 1,453 | 89,341 | 0.81 | 0.93 |
| June | 1,570 | 320 | 613 | 36,476 | 0.34 | 0.38 |
| July | 4,585 | 320 | 955 | 58,720 | 0.53 | 0.61 |
| August | 13,250 | 290 | 2,545 | 156,486 | 1.41 | 1.63 |
| September | 9,250 | 345 | 2,077 | 123,590 | 1.15 | 1.28 |
| October | 7,300 | 290 | 1,097 | 67,452 | 0.61 | 0.70 |
| November | 3,998 | 575 | 1,496 | 89,018 | 0.83 | 0.92 |
| December | 4,895 | 600 | 1,255 | 77,167 | 0.70 | 0.81 |
| 1899. | | | | | | |
| January | 9,700 | 730 | 2,840 | 174,625 | 1.58 | 1.82 |
| February | 24,200 | 2,425 | 9,860 | 547,597 | 5.48 | 5.71 |
| March | 21,000 | 2,213 | 7,816 | 480,587 | 4.34 | 5.00 |
| April | 11,000 | 950 | 2,790 | 166,017 | 1.55 | 1.73 |
| May | 6,200 | 625 | 1,881 | 115,658 | 1.05 | 1.21 |
| June | 3,190 | 320 | 944 | 56,172 | 0.52 | 0.58 |
| July | 5,570 | 305 | 1,019 | 62,656 | 0.57 | 0.66 |
| August | 2,935 | 270 | 856 | 52,633 | 0.48 | 0.55 |
| September | 1,690 | 270 | 465 | 27,669 | 0.26 | 0.29 |
| October | 5,390 | 280 | 1,028 | 63,209 | 0.57 | 0.66 |
| November | 8,100 | 320 | 1,116 | 66,407 | 0.62 | 0.69 |
| December | 1,450 | 305 | 464 | 28,530 | 0.26 | 0.30 |
| The year | 24,200 | 270 | 2,590 | 1,841,760 | 1.44 | 19.20 |

DEEP RIVER AT MONCURE, N. C.

This station is located about one-fourth of a mile south of Moncure, Chatham County, North Carolina, at the covered wooden bridge of the Seaboard Air Line which crosses the river here, and about two miles above the junction with the Haw River to form the Cape Fear.

This station was established May 5, 1898, and discontinued at the end of 1899.

DISCHARGE MEASUREMENTS OF DEEP RIVER AT MONCURE, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1898. | | | |
| May 6 | E. W. Myers | 2.00 | 403 |
| Aug. 20 | ----do | 17.20 | 14,994 |
| 1899. | | | |
| Feb. 4 | E. W. Myers | 7.03 | 4,590 |
| May 27 | ----do | 2.16 | 447 |
| June 5 | ----do | 2.51 | 610 |
| Oct. 12 | ----do | 1.89 | 449 |
| Nov. 26 | ----do | 1.32 | 290 |

DAILY GAGE HEIGHT, IN FEET, OF DEEP RIVER AT MONCURE, N. C., FOR 1898-1899.

| 1898. (Day) | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 1.75 | 1.76 | 1.12 | 3.82 | 1.52 | 5.72 | 2.95 |
| 2 | ---------- | 1.50 | 1.53 | 2.00 | 3.50 | 1.92 | 4.89 | 3.27 |
| 3 | ---------- | 1.62 | 1.34 | 1.80 | 2.64 | 1.88 | 3.22 | 3.20 |
| 4 | ---------- | 1.50 | 1.20 | 2.00 | 4.84 | 1.54 | 2.78 | 7.90 |
| 5 | 1.96 | 1.42 | 1.14 | 1.98 | 12.62 | 2.92 | 2 44 | 9.49 |
| 6 | 1.90 | 1.20 | 2.80 | 1.52 | 8.67 | 2.84 | 2.14 | 6.34 |
| 7 | 2.30 | 1.25 | 7.80 | 1.50 | 7.14 | 2.74 | 3.92 | 5.42 |
| 8 | 3.50 | 1.20 | 4.52 | 1.24 | 5.72 | 2.22 | 3.64 | 4.60 |
| 9 | 3.70 | 1.24 | 2.90 | 1.22 | 5.88 | 1.68 | 2.98 | 3.14 |
| 10 | 2.74 | 1.20 | 2.16 | 1.20 | 4.22 | 1.56 | 2.76 | 3.00 |
| 11 | 2.40 | 1.14 | 3.60 | 1.46 | 3.40 | 1.54 | 2.51 | 2.34 |
| 12 | 2.00 | 1.54 | 2.40 | 1.50 | 2.48 | 1.51 | 2.16 | 2.32 |
| 13 | 1.74 | 1.20 | 1.72 | 2.66 | 2.08 | 1.50 | 3.28 | 2.30 |
| 14 | 2.65 | 1.22 | 1.84 | 8.12 | 1.85 | 1.54 | 2.76 | 2.28 |
| 15 | 2.20 | 1.30 | 1.72 | 12.10 | 1.08 | 1.52 | 2.52 | 2.25 |
| 16 | 2.10 | 1.35 | 1.78 | 3.82 | 1.98 | 1.36 | 3.51 | 2.26 |
| 17 | 1.94 | 2.10 | 1.75 | 2.68 | 1.67 | 1.32 | 2.13 | 2.12 |
| 18 | 2.00 | 1.94 | 4.00 | 4.88 | 1.52 | 1.92 | 5.54 | 2.25 |
| 19 | 2.10 | 1.82 | 2.74 | 9.00 | 1.50 | 3.56 | 6.28 | 2.30 |
| 20 | 1.98 | 2.24 | 2.86 | 19.10 | 1.56 | 3.22 | 4.94 | 2.10 |
| 21 | 1.76 | 2.65 | 2.12 | 18.84 | 1.48 | 2.42 | 4.08 | 2.54 |
| 22 | 1.64 | 2.98 | 1.16 | 14.13 | 1.19 | 8.98 | 3.76 | 2.32 |
| 23 | 1.50 | 2.38 | 4.22 | 9.62 | 2.22 | 6.00 | 2.96 | 4.18 |
| 24 | 6.20 | 1.94 | 3.14 | 5.37 | 10.44 | 3.56 | 2.48 | 3.70 |
| 25 | 6.54 | 1.72 | 2.32 | 3.12 | 4.56 | 3.44 | 2.21 | 3.28 |
| 26 | 4.96 | 1.35 | 1.94 | 3.00 | 3.65 | 2.98 | 2.05 | 3.22 |
| 27 | 3.48 | 1.36 | 1.98 | 2.57 | 2.68 | 2.21 | 2.34 | 2.48 |
| 28 | 2.28 | 1.22 | 1.90 | 3.30 | 2.14 | 2.01 | 2.24 | 2.76 |
| 29 | 2.20 | 1.24 | 1.82 | 3.52 | 1.96 | 1.99 | 2.31 | 2.72 |
| 30 | 1.98 | 1.78 | 1.88 | 6.73 | 1.80 | 6.70 | 3.10 | 2.40 |
| 31 | 1.70 | ---------- | 1.82 | 5.58 | ---------- | 8.76 | ---------- | 2.26 |

| 1899. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.03 | 4.58 | 6.91 | 7.12 | 2.99 | 2.84 | 1.52 | 4.54 | 0.85 | 0.83 | 12.74 | 2.77 |
| 2 | 3.21 | 5.00 | 6.25 | 4.70 | 2.85 | 2.61 | 1.36 | 4.36 | .79 | .78 | 5.86 | 1.85 |
| 3 | 3.41 | 6.78 | 6.39 | 4.52 | 2.56 | 3.45 | 1.34 | 3.46 | .75 | .88 | 4.23 | 1.83 |
| 4 | 3.27 | 7.06 | 13.25 | 5.16 | 2.51 | 3.13 | 1.18 | 3.08 | .91 | .79 | 3.48 | 2.19 |
| 5 | 2.79 | 16.40 | 14.43 | 8.64 | 2.29 | 2.49 | 4.20 | 1.46 | .73 | .87 | 3.04 | 2.15 |
| 6 | 2.47 | 20.48 | 15.77 | 6.18 | 2.25 | 1.95 | 2.42 | 1.20 | .71 | 7.20 | 2.74 | 1.49 |
| 7 | 10.27 | 23.21 | 15.67 | 6.40 | 2.47 | 1.65 | 2.72 | 4.54 | .89 | 6.49 | 2.24 | 1.27 |
| 8 | 9.13 | 25.92 | 13.62 | 17.76 | 8.85 | 1.49 | 2.11 | 4.11 | 1.19 | 6.70 | 1.91 | 1.19 |
| 9 | 7.71 | 20.90 | 10.61 | 15.04 | 6.09 | 1.58 | 2.19 | 4.15 | 1.10 | 7.11 | 1.86 | 1.11 |
| 10 | 5.59 | 18.70 | 7.39 | 8.28 | 4.43 | 2.55 | 2.10 | 3.37 | 1.82 | 3.96 | .84 | 1.19 |
| 11 | 4.99 | 12.26 | 5.05 | 6.16 | 3.85 | 3.23 | 1.79 | 1.39 | 2.10 | 3.19 | .89 | 4.03 |
| 12 | 5.83 | 7.19 | 4.41 | 5.40 | 5.89 | 4.72 | 1.67 | 1.41 | 2.55 | 1.97 | 1.09 | 5.95 |
| 13 | 6.07 | 6.98 | 4.67 | 4.86 | 7.99 | 3.78 | 1.34 | 1.25 | 2.04 | 1.72 | 1.02 | 4.69 |
| 14 | 9.79 | 6.06 | 3.91 | 4.48 | 9.23 | 3.40 | 1.19 | 1.21 | 4.86 | 1.59 | 1.09 | 3.39 |
| 15 | 13.07 | 5.10 | 21.19 | 3.76 | 5.99 | 2.56 | 1.09 | 1.29 | 1.96 | 1.31 | .96 | 2.35 |
| 16 | 8.61 | 6.76 | 22.51 | 3.98 | 4.46 | 2.42 | 1.28 | 1.31 | 1.04 | 1.17 | .98 | 1.39 |
| 17 | 7.91 | 16.20 | 16.21 | 4.10 | 3.97 | 2.40 | .90 | 1.17 | .93 | 1.27 | 1.08 | 1.34 |
| 18 | 6.93 | 21.26 | 9.99 | 4.04 | 3.75 | 1.68 | 1.14 | 1.09 | .84 | 1.04 | 1.26 | 1.47 |
| 19 | 5.99 | 19.34 | 14.69 | 3.54 | 3.69 | 1.58 | 1.11 | 1.25 | .87 | 1.06 | 1.14 | 1.39 |
| 20 | 4.73 | 15.30 | 15.31 | 3.32 | 3.05 | 1.49 | 1.02 | .88 | 1.71 | 1.12 | 1.02 | .63 |
| 21 | 3.15 | 9.92 | 9.02 | 3.46 | 2.89 | 1.50 | 1.02 | .74 | 1.99 | .97 | .98 | 1.27 |
| 22 | 3.36 | 9.05 | 7.15 | 2.97 | 2.67 | 1.47 | 1.02 | .78 | 1.49 | .90 | 1.10 | 1.13 |
| 23 | 3.08 | 8.22 | 5.87 | 3.10 | 3.25 | 1.77 | 1.19 | .90 | 1.17 | .87 | 1.05 | 1.07 |
| 24 | 3.17 | 7.92 | 5.43 | 2.96 | 2.85 | 1.37 | 1.11 | .95 | .87 | .85 | 1.04 | 1.19 |
| 25 | 3.25 | 6.24 | 4.91 | 2.97 | 2.75 | 1.55 | 1.52 | 1.06 | 2.34 | .91 | 1.00 | 1.13 |
| 26 | 3.27 | 6.92 | 4.41 | 5.60 | 2.51 | 1.57 | 1.67 | .84 | 1.53 | .92 | 1.32 | 1.11 |
| 27 | 3.54 | 12.94 | 4.14 | 5.54 | 2.25 | 1.71 | 5.19 | 1.00 | 1.35 | 1.01 | 1.92 | 1.07 |
| 28 | 3.19 | 18.22 | 7.07 | 4.46 | 2.02 | 2.15 | 4.35 | .96 | 1.09 | .98 | 1.83 | .95 |
| 29 | 2.55 | -------- | 11.65 | 3.50 | 1.91 | 1.68 | 3.77 | 1.20 | 1.17 | .94 | 3.78 | 1.03 |
| 30 | 2.21 | -------- | 10.31 | 3.04 | 2.54 | 1.60 | 2.11 | 1.22 | 1.04 | .89 | 2.84 | .97 |
| 31 | 3.23 | -------- | 8.44 | -------- | 2.96 | -------- | 6.28 | .89 | -------- | 1.13 | ------ | 1.03 |

RATING TABLE FOR DEEP RIVER AT MONCURE, N. C., FOR 1898 AND 1899.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.6 | 210 | 3.2 | 1,070 | 7.0 | 4,600 | 13.5 | 11,100 |
| 0.8 | 230 | 3.4 | 1,240 | 7.5 | 5,100 | 14.0 | 11,600 |
| 1.0 | 250 | 3.6 | 1,410 | 8.0 | 5,600 | 14.5 | 12,100 |
| 1.2 | 290 | 3.8 | 1,580 | 8.5 | 6,100 | 15.0 | 12,600 |
| 1.4 | 330 | 4.0 | 1,750 | 9.0 | 6,600 | 16.0 | 13,680 |
| 1.6 | 380 | 4.2 | 1,940 | 9.5 | 7,100 | 17.0 | 14,780 |
| 1.8 | 440 | 4.4 | 2,130 | 10.0 | 7,600 | 18.0 | 15,880 |
| 2.0 | 500 | 4.6 | 2,320 | 10.5 | 8,100 | 19.0 | 16,980 |
| 2.2 | 560 | 4.8 | 2,510 | 11.0 | 8,600 | 20.0 | 18,080 |
| 2.4 | 630 | 5.0 | 2,700 | 11.5 | 9,100 | 25.0 | 23,580 |
| 2.6 | 715 | 5.5 | 3,175 | 12.0 | 9,600 | ---- | ------ |
| 2.8 | 805 | 6.0 | 3,650 | 12.5 | 10,100 | ---- | ------ |
| 3.0 | 900 | 6.5 | 4,125 | 13.0 | 10,600 | ---- | ------ |

ESTIMATED MONTHLY DISCHARGE OF DEEP RIVER AT MONCURE, N. C.

[Drainage area, 1,400 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1898. | | | | | | |
| May, 27 days* | 4,125 | 340 | 951 | 50,929 | 0.68 | 0.78 |
| June | 850 | 270 | 378 | 22,493 | 0.27 | 0.30 |
| July | 5,300 | 260 | 818 | 50,297 | 0.58 | 0.67 |
| August | 16,980 | 250 | 3,181 | 195,592 | 2.27 | 2.62 |
| September | 10,100 | 260 | 1,811 | 107,762 | 1.29 | 1.44 |
| October | 6,200 | 280 | 1,001 | 61,549 | 0.72 | 0.83 |
| November | ------ | ----- | 1,138 | 67,716 | 0.81 | 0.90 |
| December | ------ | ----- | 1,281 | 78,766 | 0.92 | 1.06 |
| 1899. | | | | | | |
| January | 10,650 | 515 | 2,876 | 176,838 | 2.05 | 2.37 |
| February | 24,570 | 2,320 | 10,109 | 561,425 | 7.22 | 7.52 |
| March | 21,930 | 1,665 | 7,413 | 455,808 | 5.30 | 6.11 |
| April | 15,605 | 875 | 3,278 | 195,055 | 2.34 | 2.61 |
| May | 6,850 | 470 | 1,759 | 108,157 | 1.26 | 1.45 |
| June | 2,415 | 325 | 673 | 40,046 | 0.48 | 0.54 |
| July | 3,935 | 240 | 701 | 43,103 | 0.50 | 0.58 |
| August | 2,273 | 225 | 651 | 40,028 | 0.47 | 0.54 |
| September | 2,558 | 220 | 408 | 24,278 | 0.29 | 0.32 |
| October | 4,800 | 230 | 888 | 54,601 | 0.63 | 0.72 |
| November | 10,350 | 235 | 940 | 55,934 | 0.67 | 0.74 |
| December | 3,603 | 245 | 601 | 36,954 | 0.43 | 0.49 |
| The year | 24,570 | 220 | 2,525 | 1,792,227 | 1.80 | 23.99 |

*Approximate.

### DEEP RIVER AT CUMNOCK, N. C.

This station was established on June 29, 1900. It is 300 yards northwest of the railroad station at Cumnock. The wire gage, which is graduated to feet and tenths, is nailed to the guard rail of the bridge. When the gage reads 3 feet the water surface is 37.41 feet below the top of the lower chord at the side of the tension rod supporting the floor beam opposite the gage. The channel is straight for several hundred feet above and below the bridge, but the current is rather sluggish during low water. The bed of the stream is muddy, with some bowlders. The observer is J. A. Rollins, a watchman at Cumnock. The station was discontinued in June, 1902.

DISCHARGE MEASUREMENTS OF DEEP RIVER AT CUMNOCK, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1900. | | | | | |
| June 29 | E. W. Myers | | | 3.00 | 540 |
| Aug. 11 | do | | | 1.30 | 112 |
| Nov. 5 | do | | | 4.55 | 1,118 |
| Dec. 19 | do | | | 1.70 | 199 |
| 1901. | | | | | |
| Mar. 27 | | | | 30.50 | 22,425 |
| Apr. 6 | | | | 5.60 | 1,671 |
| July 15 | | | | 18.25 | 12,013 |
| Nov. 28 | | | | 2.24 | 204 |
| 1902. | | | | | |
| July 11 | B. S. Drane | 532 | .42 | 1.91 | 224 |
| Aug. 18 | do | 505 | .45 | 1.81 | 228 |

DAILY GAGE HEIGHT, IN FEET, OF DEEP RIVER AT CUMNOCK, N. C., FOR 1900.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.24 | 1.54 | 2.02 | 1.31 | 1.32 | 1.58 | 17 | (*) | 1.75 | 4.40 | 1.95 | 1.69 | 1.58 |
| 2 | 2.04 | 1.54 | 1.79 | 1.35 | 1.24 | 1.70 | 18 | (*) | 1.20 | 2.04 | 1.66 | 1.39 | 1.38 |
| 3 | 1.85 | 1.65 | 1.69 | 1.14 | 1.39 | 2.94 | 19 | (*) | .85 | 1.92 | 1.57 | 1.80 | 1.75 |
| 4 | 2.95 | 1.37 | 1.47 | 1.21 | 9.19 | 6.96 | 20 | 1.24 | 1.14 | 1.78 | 1.39 | 1.72 | 1.70 |
| 5 | 2.14 | 1.35 | 1.34 | 1.10 | 5.43 | 9.99 | 21 | .72 | 1.10 | 1.67 | 1.34 | 1.71 | 5.77 |
| 6 | 1.87 | 1.53 | 1.35 | 1.16 | 2.89 | 4.66 | 22 | .96 | 1.12 | 1.45 | 1.38 | 1.80 | 8.23 |
| 7 | (*) | 1.34 | 1.44 | 1.00 | 2.26 | 3.17 | 23 | 1.25 | 1.45 | 1.43 | 1.43 | 1.39 | 4.63 |
| 8 | (*) | 1.13 | 1.36 | 1.28 | 1.88 | 2.26 | 24 | 1.88 | 2.34 | 1.53 | 1.50 | 1.44 | 3.31 |
| 9 | (*) | 1.18 | 1.27 | 1.50 | 1.83 | 2.13 | 25 | 1.54 | 1.76 | 1.55 | 1.36 | 1.28 | 3.10 |
| 10 | (*) | 1.29 | 1.37 | 1.77 | 1.68 | 1.90 | 26 | 1.50 | 1.46 | 1.56 | 1.28 | 1.82 | 2.95 |
| 11 | (*) | 1.30 | 1.37 | 1.82 | 1.60 | 1.72 | 27 | 4.27 | 1.41 | 1.51 | 1.34 | 1.86 | 2.88 |
| 12 | (*) | 1.20 | 1.32 | 1.60 | 1.50 | 1.74 | 28 | 3.39 | 1.34 | 1.55 | 1.14 | 1.55 | 2.24 |
| 13 | (*) | 1.27 | 1.37 | 1.46 | 1.40 | 1.85 | 29 | 2.35 | 1.25 | 1.50 | 1.30 | 1.45 | 2.23 |
| 14 | (*) | 1.30 | 1.45 | 1.32 | 1.34 | 1.70 | 30 | 1.90 | 2.35 | 1.21 | 1.33 | 1.80 | 2.35 |
| 15 | (*) | 1.43 | 1.50 | 2.11 | 1.33 | 1.50 | 31 | 1.54 | 2.59 | ------- | 1.40 | ------ | 9.22 |
| 16 | (*) | 1.37 | 8.52 | 2.11 | 1.62 | 1.66 | | | | | | | |

*No record.

DAILY GAGE HEIGHT, IN FEET, OF DEEP RIVER AT CUMNOCK, N. C., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.75 | 3.35 | 2.00 | 13.23 | 1.73 | 4.59 | 6.04 | 2.65 | 7.05 | 2.66 | 2.58 | 2.20 |
| 2 | 4.84 | 3.07 | 1.97 | 14.80 | 1.59 | 3.79 | 4.87 | 2.52 | 7.21 | 2.61 | 2.12 | 2.18 |
| 3 | 3.90 | 3.18 | 1.91 | 12.06 | 1.15 | 3.80 | 3.32 | 2.31 | 4.70 | 2.53 | 2.09 | 2.25 |
| 4 | 2.92 | 6.96 | 1.87 | 9.51 | 1.11 | 3.89 | 3.21 | 2.53 | 4.20 | 3.06 | 2.06 | 2.27 |
| 5 | 2.48 | 5.71 | 1.82 | 7.52 | 1.11 | 3.94 | 3.15 | 3.07 | 4.01 | 2.94 | 2.03 | 2.24 |
| 6 | 2.04 | 4.75 | 1.91 | 4.82 | 1.11 | 3.59 | 3.09 | 5.53 | 3.85 | 2.68 | 2.00 | 2.20 |
| 7 | 2.90 | 3.25 | 1.90 | 2.67 | 1.14 | 2.81 | 3.86 | 13.33 | 3.49 | 2.67 | 1.99 | 2.18 |
| 8 | 2.51 | 2.92 | 1.90 | 2.20 | 1.05 | 2.75 | 3.71 | 20.02 | 2.56 | 2.57 | 2.06 | 2.13 |
| 9 | 2.08 | 4.27 | 1.88 | 1.96 | 1.02 | 2.58 | 5.48 | 18.03 | 2.49 | 2.51 | 2.13 | 2.12 |
| 10 | 2.02 | 4.71 | 1.93 | 1.74 | 2.00 | 2.49 | 7.25 | 14.84 | 2.41 | 2.49 | 2.11 | 2.10 |
| 11 | 1.98 | 4.90 | 2.38 | 1.56 | 2.96 | 2.34 | 4.43 | 10.56 | 2.35 | 2.46 | 2.09 | 2.09 |
| 12 | 2.48 | 3.97 | 2.73 | 1.27 | 2.68 | 2.44 | 2.76 | 6.11 | 2.27 | 2.40 | 2.19 | 2.09 |
| 13 | 9.55 | 3.45 | 2.75 | 1.17 | 2.34 | 2.72 | 2.94 | 7.86 | 2.21 | 4.62 | 2.21 | 2.12 |
| 14 | 5.08 | 3.06 | 2.45 | 8.98 | 2.25 | 3.43 | 14.25 | 8.42 | 2.83 | 4.57 | 2.19 | 2.22 |
| 15 | 3.27 | 2.91 | 2.40 | 6.35 | 2.15 | 3.83 | 20.04 | 11.38 | 3.17 | 3.64 | 2.11 | 8.03 |
| 16 | 2.41 | 2.60 | 2.20 | 4.37 | 1.69 | 11.32 | 11.25 | 13.84 | 3.33 | 2.80 | 2.09 | 6.61 |
| 17 | 5.70 | 2.47 | 2.11 | 3.39 | 1.18 | 15.73 | 8.52 | 11.45 | 3.62 | 2.67 | 2.08 | 4.08 |
| 18 | 7.03 | 2.37 | 2.06 | 2.13 | 1.16 | 13.05 | 6.11 | 10.53 | 12.18 | 2.60 | 2.06 | 3.25 |
| 19 | 4.96 | 2.27 | 1.75 | 2.08 | 1.96 | 9.04 | 16.13 | 10.27 | 14.41 | 2.55 | 2.03 | 3.23 |
| 20 | 3.12 | 2.20 | 1.69 | 2.56 | 2.01 | 4.67 | 17.44 | 8.97 | 16.62 | 2.49 | 2.01 | 3.26 |
| 21 | 2.75 | 2.24 | 1.99 | 10.65 | 2.37 | 3.55 | 7.15 | 7.85 | 11.14 | 2.45 | 1.99 | 3.22 |
| 22 | 2.70 | 2.20 | 1.93 | 8.89 | 11.99 | 3.43 | 3.99 | 7.12 | 6.25 | 2.41 | 2.15 | 3.18 |
| 23 | 2.48 | 2.05 | 1.91 | 5.03 | (*) | 3.75 | 3.72 | 6.44 | 4.64 | 2.38 | 2.21 | 3.00 |
| 24 | 2.41 | 2.11 | 1.86 | 4.97 | (*) | 4.15 | 3.54 | 9.24 | 3.58 | 2.36 | 2.35 | 3.38 |
| 25 | 2.62 | 2.18 | 10.65 | 4.65 | (*) | 5.89 | 3.32 | 10.70 | 3.33 | 2.34 | 2.35 | 3.68 |
| 26 | 2.33 | 2.59 | 36.03 | 2.65 | 7.70 | 10.94 | 2.82 | 5.44 | 3.16 | 2.33 | 2.31 | 5.18 |
| 27 | 2.29 | 2.39 | 29.60 | 1.97 | 4.66 | 13.64 | 2.71 | 7.91 | 2.97 | 2.33 | 2.27 | 5.40 |
| 28 | 2.09 | 2.27 | 26.51 | 1.91 | 7.76 | 8.67 | 2.53 | 8.50 | 2.92 | 2.30 | 2.24 | 7.06 |
| 29 | 2.20 | ------- | 20.75 | 1.88 | 8.13 | 4.58 | 2.49 | 6.26 | 2.90 | 2.33 | 2.22 | 13.09 |
| 30 | 2.30 | ------- | 16.83 | 1.83 | 6.83 | 4.37 | 2.35 | 4.63 | 2.74 | 2.39 | 2.21 | 16.60 |
| 31 | 3.77 | ------- | 10.67 | ------- | 6.51 | ------- | 2.29 | 3.46 | ------- | 2.52 | ------ | 23.76 |

DAILY GAGE HEIGHT, IN FEET, OF DEEP RIVER AT CUMNOCK, N. C.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1902. | | | | | | | 1902. | | | | | | |
| 1 | 18.54 | 11.01 | 14.60 | 1.54 | 1.86 | 2.88 | 17 | 1.42 | 2.94 | 2.34 | 2.38 | 1.92 | 2.14 |
| 2 | 14.65 | 18.81 | 16.97 | 1.55 | 1.93 | 2.86 | 18 | 1.40 | 3.70 | 2.31 | 2.33 | 1.97 | 2.19 |
| 3 | 11.08 | 22.02 | 16.01 | 1.51 | 1.98 | 2.80 | 19 | 6.87 | 3.96 | 2.26 | 2.28 | 2.06 | 2.24 |
| 4 | 8.90 | 19.92 | 14.86 | 1.48 | 1.97 | 2.76 | 20 | 5.34 | 4.06 | 2.20 | 2.22 | 2.19 | 2.19 |
| 5 | 7.28 | 17.62 | 13.55 | 1.45 | 1.93 | 2.60 | 21 | 4.32 | 4.43 | 2.17 | 2.19 | 2.24 | 2.15 |
| 6 | 5.48 | 15.05 | 10.63 | 1.43 | 1.92 | 2.47 | 22 | 3.29 | 6.68 | 2.08 | 2.15 | 2.28 | 2.10 |
| 7 | 4.33 | 9.68 | 6.65 | 2.57 | 1.88 | 2.41 | 23 | 2.25 | 9.42 | 1.81 | 2.09 | 2.32 | 2.05 |
| 8 | 3.02 | 6.50 | 4.72 | 2.65 | 1.85 | 2.33 | 24 | 2.44 | 11.26 | 1.75 | 2.02 | 2.36 | 2.02 |
| 9 | 2.69 | 4.20 | 3.88 | 2.73 | 1.82 | 2.23 | 25 | 2.60 | 11.89 | 1.71 | 1.96 | 2.40 | 1.97 |
| 10 | 1.91 | 3.56 | 3.67 | 2.84 | 1.80 | 2.18 | 26 | 2.66 | 12.47 | 1.68 | 1.92 | 2.42 | 1.86 |
| 11 | 1.73 | 2.89 | 3.38 | 2.88 | 1.77 | 2.17 | 27 | 3.38 | 14.34 | 1.65 | 1.86 | 2.51 | 1.85 |
| 12 | 1.65 | 2.56 | 3.20 | 2.60 | 1.76 | 2.14 | 28 | 3.79 | 15.48 | 1.64 | 1.85 | 2.77 | 1.90 |
| 13 | 1.57 | 2.18 | 3.11 | 2.54 | 1.74 | 2.13 | 29 | 3.94 | ------- | 1.62 | 1.82 | 2.80 | ------- |
| 14 | 1.50 | 1.96 | 2.90 | 2.50 | 1.71 | 2.11 | 30 | 4.37 | ------- | 1.62 | 1.81 | 2.83 | ------- |
| 15 | 1.45 | 2.07 | 2.63 | 2.53 | 1.76 | 2.08 | 31 | 4.77 | ------- | 1.60 | ------ | 2.87 | ------- |
| 16 | 1.46 | 2.42 | 2.65 | 2.46 | 1.86 | 2.06 | | | | | | | |

*Flood.

RATING TABLE FOR DEEP RIVER AT CUMNOCK, N. C., FOR 1900, 1901 AND 1902.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.8 | 70 | 4.0 | 860 | 7.2 | 2,950 | 14.0 | 8,475 |
| 1.0 | 80 | 4.2 | 940 | 7.4 | 3,110 | 14.5 | 8,888 |
| 1.2 | 100 | 4.4 | 1,020 | 7.6 | 3,270 | 15.0 | 9,300 |
| 1.4 | 126 | 4.6 | 1,100 | 7.8 | 3,430 | 15.5 | 9,712 |
| 1.6 | 160 | 4.8 | 1,200 | 8.0 | 3,590 | 16.0 | 10,125 |
| 1.8 | 203 | 5.0 | 1.300 | 8.5 | 3,990 | 16.5 | 10,538 |
| 2.0 | 250 | 5.2 | 1,420 | 9.0 | 4.390 | 17.0 | 10,950 |
| 2.2 | 298 | 5.4 | 1,540 | 9.5 | 4,790 | 17.5 | 11,375 |
| 2.4 | 346 | 5.6 | 1,680 | 10.0 | 5,190 | 18.0 | 11,800 |
| 2.6 | 394 | 5.8 | 1,830 | 10.5 | 5,595 | 19.0 | 12,650 |
| 2.8 | 442 | 6.0 | 1,990 | 11.0 | 6,000 | 20.0 | 13,500 |
| 3.0 | 490 | 6.2 | 2,150 | 11.5 | 6,413 | 25.0 | 17,750 |
| 3.2 | 550 | 6.4 | 2,310 | 12.0 | 6,825 | 30.0 | 22,000 |
| 3.4 | 620 | 6.6 | 2,470 | 12.5 | 7,237 | 35.0 | 26,250 |
| 3.6 | 700 | 6.8 | 2,630 | 13.0 | 7,650 | | |
| 3.8 | 780 | 7.0 | 2,790 | 13.5 | 8,063 | | |

ESTIMATED MONTHLY DISCHARGE OF DEEP RIVER AT CUMNOCK, N. C.

[Drainage area, 1,110 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | |
| July (18 days) | ---------- | ---------- | 274 | 0.25 | 0.17 |
| August | 394 | 72 | 138 | .12 | .14 |
| September | 3,990 | 116 | 308 | .28 | .31 |
| October | 274 | 80 | 139 | .12 | .14 |
| November | 4,550 | 106 | 368 | .33 | .37 |
| December | 5,190 | 126 | 878 | .79 | .91 |
| 1901. | | | | | |
| January | 4,830 | 250 | 827 | .75 | .86 |
| February | 2,990 | 262 | 656 | .59 | .61 |
| March | 27,100 | 181 | 3,564 | 3.21 | 3.70 |
| April | 9,075 | 95 | 1,958 | 1.76 | 1.96 |
| May | 6,820 | 80 | 989 | .89 | 1.03 |
| June | 9,918 | 334 | 2,129 | 1.92 | 2.14 |
| July | 13,540 | 322 | 2,500 | 2.25 | 2.60 |
| August | 14,135 | 322 | 4,179 | 3.76 | 4.34 |
| September | 10,950 | 298 | 1,805 | 1.63 | 1.82 |
| October | 1,125 | 322 | 434 | .39 | .45 |
| November | 334 | 250 | 286 | .26 | .29 |
| December | 16,696 | 274 | 1,824 | 1.64 | 1.89 |
| The year | 27,100 | 80 | 1,763 | 1.59 | 21.69 |
| 1902. | | | | | |
| January | 12,268 | 126 | 1,653 | 1.49 | 1.72 |
| February | 15,200 | 238 | 4,597 | 4.14 | 4.31 |
| March | 10,908 | 160 | 2,058 | 1.85 | 2.13 |
| April | 466 | 134 | 286 | .26 | .29 |
| May | 454 | 181 | 276 | .25 | .29 |
| June 1 to 28 | 466 | 214 | *309 | *.28 | *.29 |

*Partial month; station discontinued.

### ROCKFISH CREEK NEAR BRUNT, N. C.

This station was established on October 29, 1902. The gage rod is of pine, 12 feet long, well painted, and graduated to tenths and half-tenths of a foot. It is nailed on the outside of the downstream hand rail, between the two large posts, approximately over the center of the bridge. The distance from the zero of the gage to the outer rim of the pulley is 1 foot. The length of the wire from the end of the weight to the pointer is 51.80 feet. The gage reads zero when the weight touches the bottom. The observer was C. L. Nunalee, a farmer and storekeeper; his post-office address is Brunt, N. C. The course of the creek is straight here for about 500 yards, Lower Rockfish bridge crossing the creek near the middle of this straight stretch. The left side of the stream is shallow, most of the current flowing along the right bank. The banks of the creek, of sand, rise steeply on either side to a height of about 50 feet.

The station is reached by driving from Fayetteville, N. C., a distance of 7 miles. It was discontinued May 31, 1903.

DISCHARGE MEASUREMENTS OF ROCKFISH CREEK NEAR BRUNT, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1902. | | | | | |
| Sept. 6 | B. S. Drane | 121 | 2.63 | (*) | 318 |
| Oct. 16 | do | 134 | 3.28 | (*) | 440 |
| 1903. | | | | | |
| May 27 | E. W. Myers | 151 | 3.72 | 4.15 | 563 |

*No gage height.

DAILY GAGE HEIGHT, IN FEET, OF ROCKFISH CREEK NEAR BRUNT, N. C.

| Day. | Oct. | Nov. | Dec. | Day. | Oct. | Nov. | Dec. | Day. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1902. | | | | 1902. | | | | 1902. | | | |
| 1 | | 3.65 | 5.26 | 12 | | 3.57 | 3.67 | 23 | | 3.41 | 6.97 |
| 2 | | 3.45 | | 13 | | 3.71 | 4.50 | 24 | | 3.47 | 7.47 |
| 3 | | 3.80 | | 14 | | 3.51 | 7.77 | 25 | | 3.57 | 5.10 |
| 4 | | 3.70 | | 15 | | 3.53 | 7.75 | 26 | | 3.97 | 3.75 |
| 5 | | 3.80 | | 16 | | 3.52 | 5.56 | 27 | | 4.45 | 3.67 |
| 6 | | 2.83 | 9.67 | 17 | | 3.40 | 3.92 | 28 | | 4.64 | 3.92 |
| 7 | | 4.01 | 7.87 | 18 | | 3.57 | 4.12 | 29 | | 4.77 | 3.48 |
| 8 | | 4.26 | 4.90 | 19 | | 3.90 | 4.65 | 30 | 3.70 | 3.70 | 3.78 |
| 9 | | 4.03 | 4.02 | 20 | | 3.86 | 3.97 | 31 | 3.67 | | 4.20 |
| 10 | | 4.20 | 3.90 | 21 | | 3.78 | 4.12 | | | | |
| 11 | | 3.72 | 4.17 | 22 | | 3.67 | 4.52 | | | | |

MEAN DAILY GAGE HEIGHT, IN FEET, OF ROCKFISH CREEK NEAR BRUNT, N. C., FOR 1903.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.83 | 4.07 | 19.17 | 31.28 | 8.90 | 4.20 | 17 | 4.22 | 12.70 | 5.00 | 16.50 | 4.17 | |
| 2 | 4.05 | 4.02 | 22.17 | 28.97 | 5.80 | 4.40 | 18 | 4.15 | 24.75 | 4.40 | 11.25 | 3.95 | |
| 3 | 5.87 | 4.25 | 17.42 | 18.87 | 4.55 | 4.00 | 19 | 3.57 | 26.10 | 4.40 | 8.30 | 4.25 | |
| 4 | 18.70 | 4.35 | 12.55 | 13.15 | 4.30 | 3.85 | 20 | 4.17 | 20.25 | 4.40 | 5.20 | 4.17 | |
| 5 | 18.32 | 8.35 | 8.57 | 11.25 | 4.45 | 4.20 | 21 | 4.97 | 16.95 | 4.65 | 5.55 | 3.90 | |
| 6 | 17.05 | 16.60 | 5.98 | 10.75 | 4.45 | 4.50 | 22 | 5.40 | 10.00 | 8.10 | 6.85 | 4.65 | |
| 7 | 12.70 | 12.20 | 5.40 | 8.10 | 4.40 | | 23 | 7.72 | 6.05 | 25.85 | 7.95 | 4.02 | |
| 8 | 8.47 | 13.30 | 4.50 | 6.55 | 4.25 | | 24 | 6.30 | 5.45 | 41.50 | 10.80 | 3.95 | |
| 9 | 5.27 | 26.35 | 4.50 | 5.00 | 4.25 | | 25 | 4.60 | 4.62 | 42.45 | 9.70 | 4.25 | |
| 10 | 4.27 | 26.72 | 6.55 | 15.00 | 4.45 | | 26 | 3.82 | 4.60 | 37.65 | 8.60 | 4.45 | |
| 11 | 4.10 | 17.22 | 6.75 | 12.40 | 4.25 | | 27 | 4.26 | 4.62 | 27.80 | 17.55 | 4.15 | |
| 12 | 4.50 | 19.20 | 5.95 | 8.65 | 4.35 | | 28 | 4.22 | 6.30 | 18.45 | 21.55 | 4.55 | |
| 13 | 6.00 | 25.55 | 12.75 | 6.00 | 4.40 | | 29 | 4.17 | | 11.92 | 18.05 | 4.10 | |
| 14 | 5.82 | 21.42 | 12.90 | 8.75 | 4.40 | | 30 | 4.40 | | 14.60 | 13.25 | 4.30 | |
| 15 | 4.72 | 16.80 | 9.50 | 20.00 | 4.35 | | 31 | 4.40 | | 30.02 | | 4.75 | |
| 16 | 3.95 | 11.45 | 6.65 | 16.80 | 4.35 | | | | | | | | |

# PEE DEE (OR YADKIN) RIVER DRAINAGE BASIN.

## DESCRIPTION OF BASIN.

Yadkin River, or the Pee Dee, as it is called below the junction with the Uwharie, rises on the eastern slope of the Blue Ridge, in Caldwell and Watauga counties, N. C., and flows at first southeastward, then turns abruptly to the northeast, and after flowing in this direction for about 60 miles again bends abruptly and flows southward and southeastward across North Carolina and South Carolina, emptying into Winyah Bay at Georgetown, S. C. The total length of the stream from source to mouth, in its general direction, is from 275 to 300 miles, but with all the windings it is probably 400 miles or more.

The Pee Dee drains a total area of about 17,000 square miles, of which 9,700 square miles are in North Carolina and 7,300 in South Carolina. It crosses the fall line near Cheraw, S. C., in a series of rapids extending over a number of miles, with no very great fall at any one place or in any short distance.

The upper part of the drainage basin is rough and mountainous and is largely forest covered, and throughout this part of its course the flow of the stream is more constant than would be expected. Below the great bend, where the river turns to the south, the valley averages about 50 miles in width. At many points the river is bordered by wide expanses of bottom lands, at times subject to overflow, which are fertile and very productive. At other places the stream is confined between bold and abrupt banks, and in one place it flows for several miles in a narrow channel, parts of which are only 60 feet wide, in a deep ravine between the flanking hills, forming the noted "Narrows." Above the great bend the valley is from 15 to 20 miles wide, and the elevations of the divides which separate the basin of the Yadkin from adjacent drainage basins are much higher, so that the tributary streams have a large fall.

In North Carolina both the main stream and many of its tributaries can be made to furnish power in large amount at a number of places, and for this reason they are among the most important power streams in the Southern States.

The average rainfall over the part of the basin in North Carolina is probably between 48 and 51 inches, approximating the smaller figure over the lower portions, and possibly exceeding the larger over the higher and more mountainous portions, the precipitation increasing toward the head of the stream. The total amount is rather evenly distributed among the seasons.

The highest flood ever known at Wilkesboro, it is stated, occurred in March, 1899, the stream at this place rising 28 feet above low water. The greatest flood recorded at the gaging station at Salisbury occurred in December, 1901, the stream reaching an extreme height on the gage of 19.7 feet and having a probable discharge of about 130,000 second-feet, or about 38 second-feet per square mile. The flood of March, 1899, produced a rise of about 1 foot less than this flood of December, 1901. The most destructive flood ever experienced on the river occurred in

May, 1901, but the recorded gage height at the Salisbury station was less for this flood than for either of the others mentioned, and the general testimony of those living along the banks is to the same effect.

The minimum recorded flow at the Salisbury station occurred in September, October, and November, 1897, when the basin experienced the most severe drought in its history. The flow fell to 900 second-feet several times during this period, *i. e.*, the basin above the station was discharging at an average rate of 0.26 second-foot per square mile. The maximum flow is thus about 144 times the minimum.

## MEASUREMENTS OF STREAM FLOW.

### YADKIN RIVER AT NORWOOD, N. C.

This station was established by E. W. Myers, September 1, 1896. It is at Blalocks Ferry, 1 mile above Richland Creek and about 2 miles from Norwood, North Carolina. The gage is a vertical rod divided into feet and tenths, and is spiked and braced to an overhanging tree near the ferry. The rod is referred to a bench mark consisting of a large nail driven into the root of a birch tree about 50 feet northwest of the rod. The zero of the gage rod is 5.93 feet below the bench mark. The river here is broad and shallow with smooth bottom of sand and gravel, giving a good section for discharge measurements, which are taken from the ferryboat. The channel is straight and free from all obstructions. The current is swift and the depth of the water uniform, except at a point about 100 feet from the right bank, where the water is deep and very sluggish. The banks are low, and at the time of highest flood are overflowed for a distance of half a mile. The station was abandoned in January, 1900.

DISCHARGE MEASUREMENTS OF YADKIN RIVER AT NORWOOD, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1896. | | | | | |
| Sept. 1 | E. W. Myers | 1,859 | 0.82 | 1.00 | 1,537 |
| Sept. 15 | do | 2,211 | 0.92 | 1.34 | 2,036 |
| 1897. | | | | | |
| Feb. 12 | E. W. Myers | 3,779 | 2.54 | 3.32 | 9,607 |
| Mar. 21 | do | 4,517 | 2.59 | 3.80 | 11,710 |
| Aug. 4 | do | 2,544 | 1.33 | 1.65 | 3,392 |
| Oct. 6 | do | 1,821 | 0.82 | 1.00 | 1,508 |
| Oct. 25 | A. P. Davis | 2,152 | 1.26 | 1.48 | 2,715 |
| 1898. | | | | | |
| Jan. 16 | E. W. Myers | 2,474 | 1.22 | 1.63 | 3,041 |
| May 1 | do | 6,465 | 3.84 | 5.75 | 24,825 |
| 1899. | | | | | |
| April 9 | E. W. Myers | | | 3.40 | 10,581 |
| June 8 | do | | | 1.95 | 4,474 |
| June 9 | do | | | 1.95 | 4,474 |
| Oct. 6 | do | | | 1.35 | 2,629 |
| Oct. 6 | do | | | 1.33 | 2,619 |
| Dec. 15 | do | | | 2.23 | 6,299 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORWOOD, N. C., FOR 1896.

| Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 7.40 | 1.30 | 1.50 | 12 | 1.20 | 1.20 | 1.70 | 1.70 | 23 | 1.20 | 1.20 | 1.40 | 1.80 |
| 2 | 1.00 | 3.40 | 1.30 | 2.70 | 13 | 1.20 | 1.20 | 2.20 | 1.30 | 24 | 1.30 | 1.20 | 1.40 | 1.80 |
| 3 | 1.00 | 2.30 | 1.30 | 2.70 | 14 | 1.20 | 1.20 | 1.30 | 1.60 | 25 | 1.20 | 1.30 | 1.40 | 1.70 |
| 4 | .90 | 1.80 | 1.40 | 2.30 | 15 | 1.30 | 1.30 | 1.90 | 1.90 | 26 | 1.20 | 1.30 | 1.40 | 1.70 |
| 5 | .90 | 1.60 | 3.10 | 2.30 | 16 | 1.20 | 1.30 | 1.70 | 2.50 | 27 | 1.10 | 1.30 | 1.40 | 1.70 |
| 6 | 2.50 | 1.50 | 6.00 | 2.20 | 17 | 1.30 | 1.20 | 1.60 | 3.80 | 28 | 1.00 | 1.30 | 1.40 | 1 70 |
| 7 | 3.30 | 1.40 | 3.40 | 2.30 | 18 | 1.30 | 1.20 | 1.50 | 2.90 | 29 | 1.20 | 1.20 | 1.50 | 1.60 |
| 8 | 2.10 | 1.40 | 2.50 | 2.40 | 19 | 1.20 | 1.20 | 1.50 | 2.30 | 30 | 1.30 | 1.20 | 1.70 | 1.60 |
| 9 | 1.65 | 1.30 | 2.20 | 2.20 | 20 | 1.20 | 1.10 | 1.50 | 2.10 | 31 | ------ | 1.20 | ------ | 1.70 |
| 10 | 1.45 | 1.30 | 2.10 | 2.10 | 21 | 1.10 | 1.10 | 1.50 | 2.00 | | | | | |
| 11 | 1.30 | 1.20 | 1.90 | 1.90 | 22 | 1.10 | 1.10 | 1.50 | 1.90 | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORWOOD, N. C., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.70 | 1.90 | 2.50 | 2.40 | 2.40 | 2.10 | 1.70 | 1.70 | 1.30 | 1.00 | 1.60 | 2.20 |
| 2 | 1.70 | 2.70 | 2.30 | 2.30 | 3.80 | 2.10 | 1.60 | 1.50 | 1.50 | 1.00 | 1.70 | 2.00 |
| 3 | 1.60 | 3.30 | 2.30 | 2.40 | 4.30 | 1.90 | 1.60 | 1.60 | 1.30 | 1.10 | 1.80 | 1.80 |
| 4 | 1.60 | 3.50 | 2.20 | 2.60 | 2.90 | 1.80 | 1.90 | 1.60 | 1.30 | 1.10 | 1.80 | 1.70 |
| 5 | 1.50 | 2.60 | 2.20 | 6.70 | 2.60 | 1.90 | 1.70 | 1.70 | 1.20 | 1.00 | 1.70 | 2.00 |
| 6 | 1.50 | 5.50 | 2.60 | 8.50 | 2.30 | 2.40 | 1.40 | 1.50 | 1.20 | 1.00 | 1.50 | 2.00 |
| 7 | 1.70 | 8.20 | 6.90 | 6.00 | 2.20 | 2.30 | 1.90 | 2.10 | 1.20 | 1.00 | 1.50 | 2.00 |
| 8 | 1.70 | 9.20 | 6.80 | 3.80 | 2.10 | 2.40 | 2.10 | 2.50 | 1.10 | 1.00 | 1.40 | 1.80 |
| 9 | 1.60 | 4.30 | 4.80 | 4.20 | 2.10 | 4.30 | 1.80 | 2.20 | 1.20 | 1.10 | 1.40 | 1.80 |
| 10 | 1.50 | 3.40 | 4.30 | 4.20 | 2.10 | 3.40 | 1.70 | 2.00 | 1.20 | 1.00 | 1.30 | 1.70 |
| 11 | 1.50 | 2.80 | 5.20 | 3.50 | 2.30 | 3.40 | 1.90 | 1.70 | 1.20 | 1.00 | 1.30 | 1.70 |
| 12 | 1.50 | 3.10 | 5.40 | 2.90 | 2.50 | 2.50 | 1.80 | 1.60 | 1.10 | 1.10 | 1.40 | 1.40 |
| 13 | 1.50 | 3.90 | 4.90 | 2.70 | 2 90 | 2.30 | 3.10 | 1.50 | 1.10 | 3.70 | 1.30 | 1.40 |
| 14 | 1.60 | 3.40 | 5.40 | 2.50 | 3.50 | 2.20 | 2.80 | 1.50 | 1.00 | 3.80 | 1.30 | 1.30 |
| 15 | 1.60 | 2.80 | 6.50 | 2.50 | 3.60 | 2.10 | 2.50 | 1.40 | 1.00 | 2.20 | 1.30 | 1.80 |
| 16 | 1.70 | 2.60 | 5.00 | 2.40 | 2.80 | 2.10 | 1.70, | 1.40 | .90 | 1.90 | 1.30 | 1.90 |
| 17 | 1.70 | 2.70 | 4.90 | 2.70 | 2.40 | 2.10 | 1.60 | 1.50 | .80 | 1.60 | 1.20 | 2 00 |
| 18 | 2.00 | 2.40 | 3.90 | 2.50 | 2.30 | 1.80 | 2.10 | 2.30 | .90 | 1.30 | 1.40 | 1.80 |
| 19 | 2.30 | 2.30 | 3.50 | 2.30 | 2.10 | 1.90 | 1.80 | 2.00 | 1.00 | 1.20 | 1.30 | 1.70 |
| 20 | 2.50 | 2.10 | 3.60 | 2.20 | 2.10 | 1.90 | 2.50 | 1.70 | 1.10 | 1.20 | 1.30 | 1.70 |
| 21 | 4.50 | 3.70 | 3.80 | 2.30 | 2.00 | 1.80 | 4.50 | 1.50 | 1.20 | 1.40 | 1.30 | 1.60 |
| 22 | 4.40 | 3.40 | 3.30 | 2.20 | 2.00 | 2.10 | 3.50 | 2.40 | 1.10 | 2.30 | 1.20 | 1.80 |
| 23 | 3.50 | 4.30 | 3.00 | 2.10 | 2.10 | 2.10 | 2.70 | 1.50 | 1.10 | 1.90 | 1.30 | 1.40 |
| 24 | 2.50 | 7.70 | 2.80 | 2.20 | 2.00 | 2.00 | 2.40 | 2.00 | 1.00 | 1.60 | 1.20 | 1.70 |
| 25 | 2.30 | 6.20 | 2.60 | 2.10 | 2.20 | 1.90 | 2.00 | 1.90 | 1.20 | 1.50 | 1.20 | 1.70 |
| 26 | 2.10 | 3.50 | 2.60 | 2.10 | 3.10 | 1.80 | 2.10 | 1.80 | 1.50 | 1.50 | 1.20 | 2.00 |
| 27 | 2.00 | 2.90 | 2.50 | 2.30 | 2.20 | 1.60 | 2.40 | 1.90 | 1.30 | 1.40 | 1.50 | 2.40 |
| 28 | 1.90 | 2.50 | 2.50 | 2.20 | 2.00 | 1.60 | 3.50 | 1.70 | 1.20 | 1.40 | 3.00 | 2.70 |
| 29 | 1.80 | -------- | 2.30 | 2.10 | 1.90 | 1.90 | 2.30 | 1.60 | 1.10 | 1.40 | 2.50 | 2.40 |
| 30 | 1.80 | -------- | 2.30 | 2.30 | 2.00 | 1.70 | 1.90 | 1.40 | 1.10 | 1.30 | 2.40 | 2.00 |
| 31 | -------- | -------- | 2.40 | -------- | 2.00 | -------- | 1.70 | 1.40 | -------- | 1.40 | ------ | 1.90 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORWOOD, N. C., FOR 1898 AND 1899.

| 1898. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.80 | 1.80 | 1.50 | 4.20 | 1.80 | 1.70 | 1.20 | 1.90 | 2.40 | 1.90 | 1.90 | 2.10 |
| 2 | 1.80 | 1.90 | 1.60 | 3.40 | 1.70 | 1.60 | 1.20 | 1.70 | 2.60 | 1.70 | 1.70 | 2.20 |
| 3 | 1.80 | 1.70 | 1.70 | 2.50 | 1.60 | 1.50 | 1.00 | 1.80 | 2.50 | 1.60 | 2.10 | 2.20 |
| 4 | 1.70 | 1.50 | 2.30 | 2.40 | 1.60 | 1.30 | 1.00 | 1.70 | 1.90 | 1.80 | 2.20 | 3.10 |
| 5 | 1.50 | 1.60 | 2.50 | 3.00 | 1.50 | 1.30 | .90 | 1.60 | 2.20 | 1.90 | 2.30 | 4.70 |
| 6 | 1.60 | 1.70 | 2.40 | 4.50 | 1.50 | 1.30 | 1.30 | 1.50 | 4.10 | 5.60 | 2.90 | 4.50 |
| 7 | 1.70 | 1.60 | 2.10 | 3.40 | 1.60 | 1.20 | 2.00 | 2.00 | 3.60 | 4.60 | 2.70 | 3.60 |
| 8 | 1.70 | 1.60 | 1.90 | 2.60 | 2.30 | 1.20 | 1.70 | 1.70 | 2.70 | 2.90 | 2.50 | 3.40 |
| 9 | 1.60 | 1.50 | 1.80 | 2.30 | 2.00 | 1.30 | 1.40 | 1.60 | 2.60 | 2.40 | 2.10 | 3.90 |
| 10 | 1.50 | 1.50 | 1.80 | 2.20 | 1.80 | 1.20 | 1.40 | 1.50 | 2.40 | 2.30 | 1.90 | 2.90 |
| 11 | 1.70 | 1.60 | 1.60 | 2.10 | 1.60 | 1.30 | 1.50 | 1.60 | 1.90 | 2.10 | 1.80 | 2.20 |
| 12 | 1.70 | 1.60 | 1.60 | 2.00 | 1.60 | 1.30 | 2.10 | 1.90 | 1.70 | 1.90 | 1.70 | 2.10 |
| 13 | 1.60 | 1.60 | 1.50 | 1.80 | 1.70 | 1.60 | 1.70 | 3.00 | 1.20 | 1.80 | 1.80 | 1.90 |
| 14 | 1.70 | 1.70 | 1.70 | 1.90 | 1.80 | 1.30 | 1.80 | 1.50 | 1.50 | 1.70 | 2.10 | 1.90 |
| 15 | 1.70 | 1.90 | 2.50 | 2.00 | 1.70 | 1.40 | 2.10 | 3.60 | 1.50 | 1.80 | 2.30 | 1.80 |
| 16 | 1.60 | 1.70 | 2.60 | 2.20 | 1.60 | 1.30 | 1.10 | 2.50 | 1.40 | 1.90 | 3.20 | 1.70 |
| 17 | 1.60 | 1.70 | 2.70 | 2.00 | 1.50 | 1.40 | 2.10 | 2.00 | 1.20 | 1.70 | 2.70 | 1.80 |
| 18 | 1.60 | 1.60 | 2.00 | 1.90 | 1.40 | 2.30 | 1.90 | 2.60 | 1.50 | 1.80 | 2.90 | 1.90 |
| 19 | 1.50 | 1.70 | 1.90 | 1.80 | 1.40 | 1.80 | 1.30 | 1.90 | 1.40 | 1.90 | 3.10 | 2.10 |
| 20 | 1.50 | 1.80 | 2.30 | 1.80 | 1.50 | 2.20 | 1.40 | 1.70 | 1.30 | 2.70 | 3.20 | 2.20 |
| 21 | 1.70 | 1.90 | 2.20 | 1.70 | 1.40 | 2.10 | 1.30 | 4.00 | 1.30 | 2.60 | 2.90 | 2.30 |
| 22 | 2.60 | 1.90 | 1.90 | 1.70 | 1.40 | 1.80 | 1.20 | 3.20 | 1.20 | 2.90 | 2.40 | 2.50 |
| 23 | 2.20 | 1.80 | 1.70 | 1.80 | 2.80 | 1.60 | 1.70 | 2.20 | 1.50 | 5.40 | 2.30 | 2.90 |
| 24 | 2.00 | 1.70 | 1.80 | 1.90 | 4.80 | 1.50 | 2.20 | 2.10 | 7.00 | 3.80 | 2.40 | 3.90 |
| 25 | 2.30 | 1.60 | 1.90 | 2.30 | 3.80 | 1.40 | 2.90 | 1.90 | 11.00 | 2.70 | 2.20 | 3.70 |
| 26 | 3.60 | 1.60 | 2.10 | 3.40 | 2.60 | 1.20 | 2.20 | 1.30 | 7.00 | 2.50 | 2.30 | 3.90 |
| 27 | 3.70 | 1.60 | 2.00 | 2.30 | 2.30 | 1.10 | 2.90 | 1.70 | 3.70 | 2.40 | 2.10 | 3.70 |
| 28 | 3.00 | 1.50 | 1.70 | 2.10 | 2.00 | 1.40 | 2.00 | 2.50 | 2.40 | 2.30 | 1.90 | 2.30 |
| 29 | 2.40 | ------ | 1.80 | 1.80 | 1.80 | 1.40 | 2.30 | 3.00 | 2.20 | 2.20 | 1.80 | 2.10 |
| 30 | 2.10 | ------ | 5.70 | 1.80 | 1.60 | 1.30 | 3.00 | 3.40 | 2.00 | 2.70 | 1.90 | 1.90 |
| 31 | 2.00 | ------ | 6.10 | ------ | 1.80 | ------ | 2.30 | 2.70 | ------ | 2.50 | ------ | 1.80 |
| 1899. | | | | | | | | | | | | |
| 1 | 2.80 | 3.00 | 4.50 | ------ | 2.60 | 2.10 | 1.90 | 2.70 | 1.50 | 1.30 | 1.70 | 1.20 |
| 2 | 4.30 | 2.90 | 3.70 | ------ | 2.50 | 2.20 | 1.80 | 2.20 | 1.70 | 1.20 | 1.90 | 1.20 |
| 3 | 3.30 | 2.50 | 4.30 | ------ | 2.70 | 2.50 | 1.70 | 2.70 | 1.20 | 1.20 | 1.80 | 1.50 |
| 4 | 2.30 | 2.70 | 6.70 | ------ | 2.60 | 2.10 | 1.70 | 1.70 | 1.80 | 1.20 | 1.70 | 1.50 |
| 5 | 2.50 | 8.00 | 7.50 | ------ | 2.50 | 2.10 | 3.00 | 1.20 | 1.80 | 1.10 | 1.90 | 1.50 |
| 6 | 2.40 | 10.50 | 6.10 | ------ | 2.40 | 2.00 | 3.00 | 1.60 | 1.70 | 1.30 | 1.80 | 1.40 |
| 7 | 7.80 | 10.20 | 4.10 | ------ | 2.60 | 2.00 | 2.20 | 1.50 | 1.50 | 1.40 | 1.70 | 1.40 |
| 8 | 9.00 | 9.60 | 4.00 | ------ | 3.20 | 1.90 | 2.00 | 1.50 | 1.40 | 2.00 | 1.70 | 1.30 |
| 9 | 7.00 | 7.40 | 3.80 | 3.40 | 3.50 | 2.00 | 2.00 | 1.80 | 1.80 | 2.20 | 1.80 | 1.50 |
| 10 | 3.80 | 4.60 | 3.40 | 3.00 | 3.00 | 2.10 | 1.90 | 1.70 | 1.70 | 2.40 | 1.40 | 1.40 |
| 11 | 3.10 | 3.20 | 2.00 | 2.90 | 3.00 | 3.40 | 1.90 | 1.60 | 1.90 | 2.10 | 1.40 | 1.40 |
| 12 | 3.00 | 3.10 | 2.10 | 2.80 | 2.80 | 3.50 | 1.60 | 1.50 | 1.70 | 1.70 | 1.40 | 2.40 |
| 13 | 2.90 | 3.00 | 2.40 | 2.80 | 4.50 | 3.40 | 1.60 | 1.80 | 1.50 | 1.40 | 1.40 | 3.10 |
| 14 | 4.20 | 2.40 | 3.10 | 2.70 | 4.00 | 3.80 | 1.60 | 1.70 | 1.60 | 1.30 | 1.40 | 3.10 |
| 15 | 4.50 | 2.30 | 8.10 | 2.70 | 3.50 | 3.00 | 1.50 | 1.60 | 1.50 | 1.50 | 1.40 | 2.40 |
| 16 | 3.90 | 5.60 | 10.40 | 3.40 | 2.80 | 2.50 | 1.50 | 1.50 | 1.40 | 1.50 | 1.40 | 2.10 |
| 17 | 3.80 | 5.80 | 10.30 | 3.00 | 2.50 | 2.20 | 1.50 | 1.50 | 1.20 | 1.50 | 1.30 | 1.80 |
| 18 | 3.30 | 6.90 | 8.80 | 2.80 | 2.40 | 2.10 | 1.60 | 1.40 | 1.50 | 1.40 | 1.30 | 1.30 |
| 19 | 3.10 | 5.60 | (*) | 2.80 | 2.20 | 2.00 | 1.80 | 1.40 | 1.30 | 1.40 | 1.20 | 1.20 |
| 20 | 2.80 | 5.00 | ------ | 2.70 | 2.50 | 2.00 | 1.50 | 1.30 | 1.20 | 1.40 | 1.30 | 1.20 |
| 21 | 2.60 | 4.20 | ------ | 2.70 | 2.30 | 1.90 | 1.50 | 1.30 | 3.00 | 1.40 | 1.40 | 1.50 |
| 22 | 2.50 | 3.60 | ------ | 2.50 | 2.20 | 1.90 | 1.40 | 1.40 | 2.80 | 1.30 | 1.30 | 1.50 |
| 23 | 2.40 | 3.60 | ------ | 2.50 | 2.40 | 1.90 | 1.40 | 1.30 | 1.70 | 1.30 | 1.40 | 1.50 |
| 24 | 2.30 | 3.40 | ------ | 2.40 | 2.60 | 1.80 | 1.50 | 1.20 | 1.70 | 1.20 | 1.40 | 1.80 |
| 25 | 2.50 | 2.90 | ------ | 2.30 | 2.50 | 1.70 | 1.70 | 1.20 | 1.40 | 1.30 | 1.30 | 2.10 |
| 26 | 2.40 | 3.80 | ------ | 2.80 | 2.30 | 1.70 | 1.60 | 1.20 | 1.30 | 1.20 | 1.30 | 2.10 |
| 27 | 2.40 | 5.90 | ------ | 3.50 | 2.20 | 2.40 | 4.00 | 1.20 | 1.30 | 1.20 | 1.50 | 1.70 |
| 28 | 2.30 | 7.60 | ------ | 3.10 | 2.10 | 2.30 | 2.00 | 1.20 | 1.40 | 1.20 | 1.50 | 1.80 |
| 29 | 2.30 | ------ | ------ | 2.80 | 2.10 | 2.10 | 2.50 | 1.60 | 1.30 | 1.20 | 1.70 | 1.20 |
| 30 | 2.20 | ------ | ------ | 2.70 | 2.20 | 2.00 | 2.30 | 1.80 | 1.20 | 1.20 | 1.70 | 1.20 |
| 31 | 2.70 | ------ | ------ | ------ | 2.20 | ------ | 2.10 | 2.00 | ------ | 1.70 | ------ | ------ |

*No readings March 19 to April 8; gage washed out by flood.

RATING TABLE FOR YADKIN RIVER AT NORWOOD, N. C., FOR 1896.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.70 | 1,300 | 1.60 | 3,100 | 2.50 | 6,565 | 3.40 | 10,100 |
| 0.80 | 1,370 | 1.70 | 3,485 | 2.60 | 6,950 | 3.50 | 10,500 |
| 0.90 | 1,450 | 1.80 | 3,870 | 2.70 | 7,335 | 3.60 | 10,900 |
| 1.00 | 1,540 | 1.90 | 4,255 | 2.80 | 7,720 | 3.70 | 11,300 |
| 1.10 | 1,640 | 2.00 | 4,640 | 2.90 | 8,110 | 3.80 | 11,700 |
| 1.20 | 1,830 | 2.10 | 5,025 | 3.00 | 8,500 | 3.90 | 12,100 |
| 1.30 | 2,080 | 2.20 | 5,410 | 3.10 | 8,900 | 4.00 | 12,500 |
| 1.40 | 2,380 | 2.30 | 5,795 | 3.20 | 9,300 | | |
| 1.50 | 2,720 | 2.40 | 6,180 | 3.30 | 9,700 | | |

RATING TABLE FOR YADKIN RIVER AT NORWOOD, N. C., FOR 1897 AND 1898.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.7 | 1,250 | 2.6 | 6,960 | 4.8 | 18,000 | 7.0 | 34,060 |
| 0.8 | 1,310 | 2.8 | 7,720 | 5.0 | 19,460 | 7.2 | 35,520 |
| 0.9 | 1,380 | 3.0 | 8,480 | 5.2 | 20,920 | 7.4 | 36,980 |
| 1.0 | 1,480 | 3.2 | 9,240 | 5.4 | 22,380 | 7.6 | 38,440 |
| 1.2 | 1,820 | 3.4 | 10,000 | 5.6 | 23,840 | 7.8 | 39,900 |
| 1.4 | 2,400 | 3.6 | 10,860 | 5.8 | 25,300 | 8.0 | 41,360 |
| 1.6 | 3,160 | 3.8 | 11,800 | 6.0 | 26,760 | 8.2 | 42,820 |
| 1.8 | 3,920 | 4.0 | 12,800 | 6.2 | 28,220 | 8.4 | 44,280 |
| 2.0 | 4,680 | 4.2 | 13,800 | 6.4 | 29,680 | 8.6 | 45,740 |
| 2.2 | 5,440 | 4.4 | 15,100 | 6.6 | 31,140 | 8.8 | 47,200 |
| 2.4 | 6,200 | 4.6 | 16,540 | 6.8 | 32,600 | 9.0 | 48,660 |

RATING TABLE FOR YADKIN RIVER AT NORWOOD, N. C., FOR 1899.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 1,500 | 2.8 | 7,920 | 4.6 | 17,820 | 8.5 | 46,300 |
| 1.2 | 2,080 | 3.0 | 8,760 | 4.8 | 19,060 | 9.0 | 51,000 |
| 1.4 | 2,670 | 3.2 | 9,630 | 5.0 | 20,300 | 9.5 | 56,250 |
| 1.6 | 3,270 | 3.4 | 10,600 | 5.5 | 23,510 | 10.0 | 61,500 |
| 1.8 | 3,900 | 3.6 | 11,780 | 6.0 | 26,800 | 10.5 | 66,750 |
| 2.0 | 4,600 | 3.8 | 12,980 | 6.5 | 30,300 | 11.0 | 72,000 |
| 2.2 | 5,400 | 4.0 | 14,180 | 7.0 | 33,800 | | |
| 2.4 | 6,240 | 4.2 | 15,380 | 7.5 | 37,800 | | |
| 2.6 | 7,080 | 4.4 | 16,580 | 8.0 | 41,800 | | |

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER AT NORWOOD, N. C.
[Drainage area, 4,614 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| September | 9,700 | 1,450 | 2,409 | 143,344 | 0.58 | 0.52 |
| October | 26,100 | 1,640 | 3,225 | 198,297 | 0.81 | 0.70 |
| November | 20,500 | 2,080 | 4,176 | 248,489 | 1.01 | 0.91 |
| December | 11,700 | 2,080 | 4,885 | 300,369 | 1.22 | 1.06 |
| 1897. | | | | | | |
| January | 15,810 | 2,780 | 4,880 | 300,060 | 1.22 | 1.06 |
| February | 50,120 | 4,300 | 13,760 | 764,190 | 3.10 | 2.98 |
| March | 33,330 | 5,440 | 13,017 | 800,385 | 3.25 | 2.82 |
| April | 45,010 | 5,060 | 9,755 | 580,465 | 2.35 | 2.11 |
| May | 14,400 | 4,300 | 6,388 | 392,785 | 1.59 | 1.38 |
| June | 14,400 | 3,160 | 5,397 | 321,145 | 1.31 | 1.17 |
| July | 15,810 | 2,400 | 5,495 | 337,875 | 1.37 | 1.19 |
| August | 6,580 | 2,400 | 3,712 | 228,240 | 0.93 | 0.81 |
| September | 2,780 | 1,310 | 1,774 | 105,560 | 0.43 | 0.38 |
| October | 26,900 | 1,480 | 2,999 | 184,400 | 0.75 | 0.65 |
| November | 8,480 | 1,820 | 2,973 | 176,910 | 0.71 | 0.64 |
| December | 7,340 | 2,080 | 4,171 | 256,465 | 1.04 | 0.90 |
| The year | 50,120 | 1,310 | 6,193 | 4,448,480 | 18.05 | 1.34 |
| 1898. | | | | | | |
| January | 11,330 | 2,780 | 4,506 | 277,063 | 1.13 | 0.98 |
| February | 4,300 | 2,780 | 3,445 | 191,325 | 0.78 | 0.75 |
| March | 27,490 | 2,780 | 5,972 | 367,204 | 1.49 | 1.29 |
| April | 15,820 | 3,540 | 6,128 | 364,641 | 1.48 | 1.33 |
| May | 18,000 | 2,400 | 4,469 | 274,788 | 1.12 | 0.97 |
| June | 5,820 | 1,650 | 2,755 | 163,934 | 0.67 | 0.60 |
| July | 8,480 | 1,380 | 3,928 | 241,523 | 0.98 | 0.85 |
| August | 12,800 | 2,110 | 5,353 | 329,143 | 1.34 | 1.16 |
| September | 63,260 | 1,820 | 8,887 | 528,813 | 2.15 | 1.93 |
| October | 23,840 | 3,160 | 7,045 | 433,180 | 1.76 | 1.53 |
| November | 9,240 | 3,540 | 5,858 | 348,575 | 1.41 | 1.27 |
| December | 17,270 | 3,540 | 7,461 | 458,759 | 1.87 | 1.62 |
| The year | 63,260 | 1,380 | 5,484 | 3,978,948 | 16.18 | 1.19 |
| 1899. | | | | | | |
| January | 51,000 | 5,400 | 12,026 | 739,450 | 3.00 | 2.61 |
| February | 66,750 | 5,820 | 22,070 | 1,225,706 | 4.97 | 4.78 |
| March 1 to 18* | ---------- | 4,600 | 24,572 | 1,510,873 | 6.14 | 5.33 |
| April 9 to 30* | ---------- | 5,820 | 8,219 | 489,064 | 1.99 | 1.78 |
| May | 17,200 | 5,000 | 7,523 | 462,571 | 1.88 | 1.63 |
| June | 12,980 | 3,570 | 5,865 | 348,992 | 1.42 | 1.27 |
| July | 14,180 | 2,670 | 4,489 | 276,018 | 1.12 | 0.97 |
| August | 7,500 | 2,080 | 3,321 | 204,200 | 0.83 | 0.72 |
| September | 8,760 | 2,080 | 3,355 | 199,636 | 0.81 | 0.73 |
| October | 6,240 | 1,790 | 2,840 | 174,625 | 0.71 | 0.62 |
| November | 4,250 | 2,080 | 2,999 | 178,453 | 0.72 | 0.65 |
| December | 9,180 | 2,080 | 3,739 | 229,902 | 0.93 | 0.81 |

*Approximate.

### YADKIN RIVER NEAR SALISBURY, N. C.

This station was established September 24, 1895. It is located at the Piedmont toll bridge, about 6 miles east of Salisbury, N. C.

The bridge is a five-span steel structure situated 300 yards above the Southern Railway bridge. The channel curves to the right a short distance below the bridge. The bed is rocky. The discharge is modified considerably at times by driftwood lodging against the piers.

Discharge measurements are made from the bridge to which the gage is attached. The gage was first established on the railroad bridge 300 yards below. In 1899 a gage was put on the toll bridge, and this was used until 1903, when the station was moved back to the railroad bridge. In the latter part of 1905 simultaneous readings of the gages on both bridges were commenced and continued during the greater part of 1906. This was to determine the relation between the two gages, as it was finally decided to continue the gage readings from the toll bridge. All 1906 gage heights refer to the toll-bridge gage.

The gage is of the standard chain type, fastened to the downstream lower chord in the second span from the left end. The chain length is 26.87 feet. The gage is read twice each day by J. T. Yarbrough, the toll collector. The reference point is the top of the downstream end of the first floor beam of the second span from the right bank; elevation, 23.14 feet above the gage zero. The bench mark is a standard copper plug set in a rock on right bank on the upstream side of the road, 5 feet from the tollgate and 6.4 feet upstream from the upstream side of bridge produced; elevation, 31.49 feet above the datum of the toll-bridge gage.

DISCHARGE MEASUREMENTS OF YADKIN RIVER NEAR SALISBURY, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1895. | | | | | |
| Oct. 5 | C. C. Babb | 1,190 | 1.22 | 1.44 | 1,457 |
| Oct. 26 | ----do | 1,159 | 1.33 | 1.45 | 1,538 |
| Dec. 10 | ----do | 1,534 | 1.57 | 1.74 | 2,415 |
| 1896. | | | | | |
| Apr. 20 | E. W. Myers | 1,553 | 1.87 | 2.00 | 2,916 |
| Aug. 29 | ----do | 1,318 | 0.98 | 1.50 | 1,293 |
| Sept. 14 | ----do | 1,486 | 1.66 | 1.79 | 2,368 |
| 1897. | | | | | |
| Feb. 13 | E. W. Myers | 2,997 | 3.38 | 4.20 | 10,141 |
| Mar. 20 | ----do | 3,436 | 3.44 | 4.45 | 11,837 |
| Apr. 18 | ----do | 3,223 | 3.10 | 3.90 | 9,992 |
| Aug. 4 | ----do | 1,768 | 1.93 | 2.18 | 3,422 |
| Oct. 6 | ----do | 1,013 | 1.26 | 1.40 | 1,300 |
| 1898. | | | | | |
| Jan. 17 | E. W. Myers | 1,412 | 1.81 | 2.10 | 2,567 |
| Apr. 1 | ----do | 2,700 | 3.37 | 3.90 | 9,110 |
| Aug. 13 | ----do | 3,323 | 3.38 | 5.00 | 11,237 |

DISCHARGE MEASUREMENTS OF YADKIN RIVER NEAR SALISBURY, N. C.—*Continued.*

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1899. | | | |
| Feb. 9 | E. W. Myers | 6.60 | 14,781 |
| Mar. 20 | do | 18.80 | 115,085 |
| Apr. 14 | do | 3.75 | 8,795 |
| June 8 | do | 2.30 | 4,264 |
| June 9 | do | 2.38 | 4,264 |
| Oct. 4 | do | 1.70 | 1,847 |
| Nov. 24 | do | 1.79 | 1,957 |
| Dec. 14 | do | 3.00 | 5,952 |
| 1900. | | | |
| Feb. 13 | E. W. Myers | 7.43 | 26,682 |
| Apr. 14 | do | 2.50 | 3,962 |
| May 19 | do | 2.45 | 4,042 |
| May 25 | do | 3.82 | 7,930 |
| Aug. 18 | do | 1.95 | 1,447 |
| Nov. 9 | do | 2.30 | 2,035 |
| Dec. 17 | do | 2.45 | 3,025 |
| 1901. | | | |
| Apr. 3 | E. W. Myers | 10.50 | 38,550 |
| Apr. 6 | do | 4.72 | 12,160 |
| Apr. 24 | do | 4.48 | 9,611 |
| July 27 | do | 2.80 | 4,509 |
| Nov. 14 | do | 2.60 | 3,288 |
| 1902. | | | |
| May 12 | J. S. Henderson | 2.75 | 4,139 |
| June 13 | do | 2.56 | 3,467 |
| July 18 | B. S. Drane | 2.20 | 2,788 |
| Aug. 14 | do | 3.30 | 7,301 |
| Aug. 29 | do | 2.07 | 2,411 |
| Sept. 16 | do | 2.00 | 2,119 |
| Oct. 18 | do | 2.05 | 2,277 |
| Dec. 3 | do | 6.52 | 16,894 |
| 1903. | | | |
| Feb. 14 | E. W. Myers | 4.20 | 9,992 |
| Feb. 17 | do | 10.52 | 47,960 |
| Mar. 24 | E. C. Murphy | 15.60 | 70,362 |
| Mar. 26 | B. S. Drane | 5.56 | 15,094 |
| Apr. 15 | E. C. Murphy | 7.35 | 24,419 |
| Apr. 16 | E. W. Myers | 5.20 | 15,151 |
| Apr. 16 | E. C. Murphy | 5.22 | 12,287 |
| Apr. 16 | do | 4.95 | 11,787 |
| June 20 | E. W. Myers | 2.60 | 4,286 |
| Aug. 22 | B. S. Drane | 2.35 | 4,490 |
| Aug. 22 | do | 2.35 | 3,453 |
| Oct. 27 | do | 1.95 | 2,197 |
| Nov. 14 | do | 1.89 | 2,416 |
| Dec. 17 | do | 1.75 | 2,053 |

DISCHARGE MEASUREMENTS OF YADKIN RIVER NEAR SALISBURY, N. C.—*Continued.*

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Feb. 16 | B. S. Drane | 523 | 2,061 | 1.38 | 2.06 | 2,843 |
| Mar. 17 | do | 522 | 2,132 | 1.44 | 2.19 | 3,075 |
| Apr. 25 | do | 523 | 2,090 | 1.22 | 2.08 | 2,543 |
| July 22 | do | 564 | 1,332 | 1.96 | 1.94 | 2,611 |
| July 22 | do | 528 | 2,128 | 1.38 | 2.22 | 2,942 |
| Sept. 7 | do | 524 | 2,184 | 1.78 | 2.52 | 3,892 |
| Sept. 28 | do | 520 | 1,779 | .82 | 1.44 | 1,465 |
| Sept. 28 | do | 562 | 1,120 | 1.36 | 1.42 | 1,526 |
| Dec. 17 | do | 522 | 1,942 | 1.08 | 1.82 | 2,090 |
| 1905. | | | | | | |
| Jan. 7 | B. S. Drane | 539 | 3,108 | 3.28 | 4.50 | 10,210 |
| Jan. 13 | J. M. Giles | 505 | 4,083 | 4.16 | 6.20 | 16,990 |
| Jan. 13 | do | 575 | 3,660 | 4.39 | 6.05 | 16,070 |
| Apr. 20 | B. S. Drane | 536 | 1,579 | 2.15 | 2.34 | 3,390 |
| Apr. 29 | do | 468 | 2,128 | 1.34 | 2.22 | 2,846 |
| June 24 | do | 468 | 2,194 | 1.44 | 2.22 | 3,170 |
| Aug. 19 | do | 470 | 2,338 | 1.94 | 2.74 | 4,530 |
| Sept. 21 | do | 432 | 1,959 | 1.15 | 1.85 | 2,260 |
| 1906. | | | | | | |
| Mar. 3 | E. C. Murphy | 462 | 2,220 | ---------- | 2.58 | 3,430 |
| June 22 | W. E. Hall | 475 | 2,380 | ---------- | 3.10 | 5,050 |
| Sept. 11 | do | 474 | 2,440 | ---------- | 3.04 | 4,970 |
| 1907. | | | | | | |
| Mar. 28 | W. E. Hall | 472 | 2,192 | ---------- | 2.74 | 3,547 |

DAILY GAGE HEIGHT OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1895.

| Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|
| 1 | ---------- | ---------- | 1.60 | 1.70 |
| 2 | ---------- | ---------- | 1.80 | 1.70 |
| 3 | ---------- | ---------- | 1.80 | 1.70 |
| 4 | ---------- | ---------- | 1.60 | 1.70 |
| 5 | ---------- | 1.40 | 1.50 | 1.70 |
| 6 | ---------- | 1.40 | 1.50 | 1.60 |
| 7 | ---------- | 1.40 | 1.50 | 1.60 |
| 8 | ---------- | 1.40 | 1.50 | 1.60 |
| 9 | ---------- | 1.40 | 1.50 | 1.60 |
| 10 | ---------- | 1.50 | 1.90 | 1.60 |
| 11 | ---------- | 1.50 | 2.20 | 1.60 |
| 12 | ---------- | 1.40 | 2.20 | 1.70 |
| 13 | ---------- | 1.40 | 1.90 | 1.70 |
| 14 | ---------- | 1.50 | 1.80 | 1.70 |
| 15 | ---------- | 1.50 | 1.60 | 1.60 |
| 16 | ---------- | 1.50 | 1.60 | 1.60 |
| 17 | ---------- | 1.50 | 1.60 | 1.60 |
| 18 | ---------- | 1.50 | 1.60 | 1.60 |
| 19 | ---------- | 1.40 | 1.60 | 1.60 |
| 20 | ---------- | 1.40 | 1.60 | 1.60 |
| 21 | ---------- | 1.40 | 1.60 | 2.10 |
| 22 | ---------- | 1.40 | 1.60 | 2.30 |
| 23 | ---------- | 1.40 | 1.60 | 1.90 |
| 24 | 1.40 | 1.40 | 1.60 | 2.10 |
| 25 | 1.40 | 1.40 | 1.60 | 2.90 |
| 26 | 1.40 | 1.40 | 1.60 | 2.20 |
| 27 | 1.40 | 1.40 | 1.80 | 1.90 |
| 28 | 1.40 | 1.40 | 2.30 | 2.10 |
| 29 | 1.40 | 1.40 | 1.90 | 2.40 |
| 30 | ---------- | 1.40 | 1.70 | 2.30 |
| 31 | ---------- | 1.50 | ---------- | 4.10 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1896 AND 1897.

| 1896. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.60 | 2.00 | 2.50 | 2.50 | 1.80 | 1.50 | 1.80 | 2.00 | 1.40 | 8.40 | 1.68 | 6 70 |
| 2 | 3.00 | 2.00 | 2.20 | 8.00 | 1.80 | 1.50 | 1.60 | 1.90 | 1.40 | 3.70 | 1.70 | 4.10 |
| 3 | 2.40 | 5.70 | 2.70 | 7.30 | 2.10 | 1.80 | 1.60 | 1.90 | 1.40 | 2.20 | 1.72 | 3.70 |
| 4 | 2.20 | 6.70 | 1.80 | 4.00 | 2.90 | 3.90 | 2.60 | 1.70 | 1.40 | 2.50 | ------ | 2.80 |
| 5 | 1.80 | 4.90 | 2.00 | 3.10 | 2.30 | 3.70 | 2.70 | 1.70 | 1.50 | 1.80 | 5.80 | 2.50 |
| 6 | 1.60 | 5.30 | 2.00 | 2.60 | 2.20 | 2.50 | 2.80 | 1.60 | 4.50 | 1.70 | 6.78 | 2.55 |
| 7 | 1.60 | 7.00 | 1.90 | 2.50 | 2.00 | 2.20 | 4.50 | 1.60 | 2.70 | 1.70 | 3.60 | 2.53 |
| 8 | 1.90 | 5.00 | 1.90 | 2.40 | 1.90 | 2.00 | 4.90 | 1.60 | 2.20 | 1.60 | 3.50 | 2.52 |
| 9 | 3.70 | 5.00 | 1.90 | 2.20 | 1.90 | 2.00 | 12.90 | 1.50 | 1.90 | 1.60 | 2.50 | 2.30 |
| 10 | 3.60 | 4.70 | 1.90 | 2.20 | 1.90 | 1.90 | 15.00 | 2.00 | 1.60 | 1.60 | 2.30 | 2.27 |
| 11 | 3.40 | 3.60 | 2.00 | 2.20 | 1.90 | 2.20 | 10.00 | 2.00 | 1.50 | 1.60 | 2.20 | 2.26 |
| 12 | 2.60 | 3.00 | 2.20 | 2.10 | 1.90 | 1.80 | 9.80 | 1.90 | 1.50 | 1.62 | 2.10 | 2.26 |
| 13 | 2.10 | 2.70 | 2.40 | 2.00 | 1.80 | 1.80 | 7.90 | 1.80 | 2.00 | 1.66 | 2.15 | 2.25 |
| 14 | 1.70 | 3.30 | 2.10 | 2.00 | 1.70 | 1.80 | 4.90 | 1.60 | 1.75 | 1.64 | 2.00 | 2.23 |
| 15 | 1.70 | 3.10 | 2.00 | 2.00 | 1.70 | 1.70 | 4.00 | 1.60 | 1.60 | 1.70 | 2.00 | 2.30 |
| 16 | 1.70 | 2.80 | 1.80 | 2.00 | 1.70 | 1.60 | 3.70 | 2.50 | 1.50 | 1.70 | 2.00 | 5.00 |
| 17 | 1.90 | 2.50 | 2.00 | 2.00 | 1.70 | 1.60 | 2.80 | 2.20 | 1.60 | 1.68 | 1.98 | 3.55 |
| 18 | 2.20 | 2.30 | 2.00 | 2.00 | 1.70 | 1.80 | 2.40 | 2.90 | 1.60 | 1.65 | 1.95 | 3.40 |
| 19 | 2.10 | 2.20 | 1.90 | 2.10 | 1.60 | 1.80 | 2.40 | 2.70 | 1.60 | 1.50 | 1.92 | 2.95 |
| 20 | 2.00 | 2.10 | 2.20 | 2.00 | 1.60 | 1.80 | 2.20 | 2.50 | 1.50 | 1.50 | 1.90 | 3.90 |
| 21 | 1.90 | 2.00 | 2.60 | 2.00 | 1.50 | 1.70 | 2.20 | 1.90 | 1.50 | 1.50 | 1.90 | 3.70 |
| 22 | 1.80 | 1.80 | 2.20 | 2.00 | 1.80 | 1.70 | 2.30 | 1.90 | 1.50 | 1.48 | 1.90 | 3.33 |
| 23 | 2.50 | 2.10 | 2.10 | 2.00 | 1.80 | 1.60 | 2.50 | 1.50 | 1.70 | 1.48 | 1.89 | 2.30 |
| 24 | 4.30 | 2.20 | 2.10 | 1.90 | 1.80 | 1.80 | 2.30 | 1.50 | 1.60 | 1.60 | 1.88 | 2.20 |
| 25 | 3.70 | 2.10 | 2.50 | 1.90 | 1.70 | 2.10 | 2.20 | 1.50 | 1.50 | 1.76 | 1.88 | 2.13 |
| 26 | 3.20 | 2.10 | 2.40 | 2.00 | 2.00 | 2.80 | 2.00 | 1.60 | 1.50 | 1.67 | 1.88 | 2.12 |
| 27 | 2.60 | 2.10 | 2.20 | 2.00 | 2.00 | 2.60 | 1.90 | 1.60 | 1.46 | 1.65 | 1.90 | 2.10 |
| 28 | 2.40 | 2.20 | 2.10 | 1.90 | 1.80 | 2.20 | 1.90 | 1.50 | 1.45 | 1.65 | 1.90 | 2.00 |
| 29 | 2.20 | 2.30 | 2.00 | 1.90 | 1.70 | 2.10 | 2.20 | 1.50 | 1.50 | 1.65 | 2.70 | 2.00 |
| 30 | 2.10 | -------- | 2.10 | 1.90 | 1.70 | 1.90 | 1.90 | 1.50 | 8.60 | 1.65 | 6.30 | 2.08 |
| 31 | 2.00 | -------- | 2.60 | -------- | 1.60 | -------- | 1.90 | 1.40 | -------- | 1.68 | ------ | 2.07 |
| 1897. | | | | | | | | | | | | |
| 1 | 2.05 | 2.50 | 2.90 | 2.80 | 3.50 | 2.80 | 2.00 | 1.90 | 2.10 | 1.30 | 2.10 | 2.00 |
| 2 | 2.04 | 2.90 | 2.80 | 2.70 | 4.50 | 2.70 | 2.00 | 1.70 | 2.10 | 1.40 | 2.20 | 2.00 |
| 3 | 2.02 | 5.80 | 2.70 | 2.80 | 4.00 | 2.20 | 1.90 | 1.90 | 2.00 | 1.30 | 2.10 | 2.10 |
| 4 | 2.01 | 4.30 | 2.70 | 3.00 | 3.20 | 2.20 | 2.00 | 2.10 | 1.90 | 1.30 | 2.30 | 2.00 |
| 5 | 2.00 | 3.00 | 2.60 | 5.50 | 2.70 | 2.60 | 2.00 | 2.00 | 1.90 | 1.20 | 2.10 | 2.60 |
| 6 | 2.00 | 3.50 | 2.50 | 10.20 | 2.50 | 2.40 | 2.10 | 1.90 | 1.80 | 1.40 | 2.10 | 2.80 |
| 7 | 2.00 | 11.10 | 8.30 | 6.50 | 2.40 | 2.50 | 2.00 | 2.50 | 1.80 | 1.40 | 2.10 | 2.70 |
| 8 | 2.00 | 7.57 | 7.50 | 4.20 | 2.40 | 6.80 | 2.60 | 1.90 | 1.80 | 1.40 | 2.00 | 1.80 |
| 9 | 2.00 | 5.20 | 5.60 | 4.30 | 2.40 | 5.00 | 2.90 | 1.90 | 1.60 | 1.40 | 1.80 | 1.90 |
| 10 | 2.00 | 3.75 | 5.90 | 4.00 | 2.30 | 5.30 | 2.40 | 1.90 | 1.60 | 1.40 | 1.80 | 1.80 |
| 11 | 2.00 | 3.00 | 6.10 | 4.00 | 2.40 | 5.00 | 2.40 | 1.90 | 1.60 | 1.40 | 1.70 | 1.80 |
| 12 | 2.00 | 3.70 | 5.10 | 3.20 | 2.40 | 4.10 | 2.00 | 1.80 | 1.50 | 2.00 | 1.70 | 1.80 |
| 13 | 2.00 | 4.20 | 5.10 | 3.00 | 3.00 | 2.80 | 4.50 | 1.80 | 1.50 | 8.50 | 1.70 | 1.80 |
| 14 | 2.00 | 3.70 | 5.10 | 3.00 | 5.20 | 2.80 | 3.00 | 1.80 | 1.50 | 4.10 | 1.60 | 1.80 |
| 15 | 2.08 | 3.20 | 6.40 | 3.10 | 3.90 | 2.60 | 2.40 | 1.70 | 1.40 | 2.30 | 1.60 | 2.20 |
| 16 | 2.10 | 2.79 | 5.30 | 3.20 | 3.10 | 2.40 | 2.10 | 1.70 | 1.40 | 2.30 | 1.60 | 2.50 |
| 17 | 2.12 | 2.90 | 5.20 | 2.80 | 2.50 | 2.20 | 1.90 | 2.00 | 1.30 | 1.90 | 1.50 | 2.20 |
| 18 | 2.50 | 2.60 | 4.40 | 2.80 | 2.50 | 2.20 | 2.40 | 2.80 | 1.30 | 1.80 | 1.50 | 2.10 |
| 19 | 2.52 | 2.60 | 4.00 | 2.90 | 2.50 | 2.20 | 3.40 | 2.30 | 1.30 | 1.80 | 1.50 | 1.80 |
| 20 | 2.55 | -------- | 4.40 | 2.80 | 2.40 | 2.70 | 3.70 | 1.90 | 1.20 | 2.10 | 1.40 | 1.80 |
| 21 | 3.40 | -------- | 4.30 | 2.70 | 2.40 | 2.30 | 3.00 | 1.60 | 1.30 | 4.10 | 1.40 | 2.00 |
| 22 | 4.60 | 5.60 | 3.90 | 2.60 | 2.20 | 2.10 | 3.20 | 1.80 | 1.40 | 3.00 | 1.20 | 2.10 |
| 23 | 3.65 | 5.00 | 3.40 | 2.60 | 2.10 | 2.10 | 2.10 | 2.30 | 1.50 | 2.10 | 1.40 | 2.00 |
| 24 | 2.85 | 9.50 | 3.00 | 2.40 | 2.20 | 1.90 | 2.30 | 2.20 | 1.80 | 1.90 | 1.40 | 2.00 |
| 25 | 2.58 | 6.70 | 3.00 | 2.30 | 3.60 | 1.90 | 3.00 | 2.10 | 1.50 | 1.90 | 1.40 | 2.00 |
| 26 | 2.45 | 4.70 | 2.90 | 2.40 | 3.00 | 1.80 | 2.10 | 2.10 | 1.50 | 1.90 | 1.20 | 1.90 |
| 27 | 2.30 | 3.50 | 2.80 | 2.40 | 2.70 | 1.90 | 3.40 | 2.00 | 1.50 | 1.90 | 3.10 | 2.00 |
| 28 | 2.22 | 3.00 | 3.00 | 2.40 | 2.30 | 1.90 | 3.30 | 1.90 | 1.30 | 1.80 | 3.20 | 2.00 |
| 29 | 1.90 | -------- | 2.80 | 2.40 | 2.40 | 2.00 | 2.50 | 2.20 | 1.30 | 1.80 | 3.00 | 2.00 |
| 30 | 1.88 | -------- | 2.70 | 2.50 | 2.40 | 2.00 | 2.10 | 2.20 | 1.30 | 1.70 | 2.70 | 1.90 |
| 31 | 2.13 | -------- | 2.80 | -------- | 2.30 | -------- | 1.90 | 2.10 | -------- | 1.90 | ------ | 1.90 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1898 AND 1899.

| 1898. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 2.00 | 1.70 | 4.70 | 1.80 | 1.80 | 1.70 | 1.80 | 2.30 | 1.80 | 2.40 | 1.70 |
| 2 | 2.00 | 2.00 | 1.70 | 3.00 | 1.80 | 1.80 | 1.70 | 1.70 | 2.00 | 1.80 | 2.40 | 1.70 |
| 3 | 2.00 | 2.00 | 1.80 | 2.80 | 1.80 | 1.70 | 1.50 | 2.00 | 1.80 | 1.90 | 2.00 | 1.70 |
| 4 | 2.00 | 1.90 | 2.20 | 2.30 | 1.80 | 1.70 | 1.30 | 3.00 | 2.00 | 2.20 | 1.80 | 2.30 |
| 5 | 2.00 | 1.90 | 2.10 | 2.70 | 2.60 | 1.80 | 1.30 | 3.10 | 4.50 | 3.65 | 1.80 | 4.80 |
| 6 | 1.90 | 1.90 | 2.00 | 2.70 | 2.00 | 1.70 | 1.80 | 3.00 | 4.00 | 7.10 | 1.80 | 5.60 |
| 7 | 1.90 | 1.90 | 1.90 | 2.40 | 3.00 | 1.60 | 1.90 | 2.20 | 3.80 | 5.00 | 1.80 | 4.20 |
| 8 | 1.90 | 1.80 | 1.90 | 2.00 | 2.60 | 1.60 | 2.30 | 2.00 | 3.00 | 3.20 | 1.70 | 3.10 |
| 9 | 1.90 | 1.80 | 1.90 | 2.00 | 2.00 | 1.60 | 1.70 | 1.90 | 2.10 | 2.20 | 1.80 | 2.00 |
| 10 | 1.90 | 1.70 | 1.90 | 2.00 | 1.70 | 1.50 | 1.70 | 2.00 | 1.80 | 1.90 | 1.90 | 1.80 |
| 11 | 1.90 | 1.70 | 1.80 | 2.00 | 1.70 | 1.50 | 1.60 | 3.00 | 1.60 | 1.80 | 1.80 | 1.80 |
| 12 | 1.90 | 1.60 | 1.80 | 1.90 | 1.80 | 2.00 | 2.70 | 4.50 | 1.60 | 1.80 | 1.70 | 1.80 |
| 13 | 1.90 | 1.60 | 2.00 | 1.90 | 2.00 | 2.10 | 1.80 | 5.30 | 1.60 | 1.90 | 1.70 | 1.70 |
| 14 | 1.90 | 1.60 | 2.60 | 1.90 | 2.80 | 1.70 | 1.80 | 4.30 | 1.50 | 1.90 | 1.80 | 1.60 |
| 15 | 2.00 | 1.50 | 2.90 | 1.80 | 1.80 | 1.80 | 1.50 | 3.80 | 1.50 | 1.80 | 1.80 | 1.60 |
| 16 | 2.00 | 1.50 | 2.80 | 1.80 | 1.70 | 1.80 | 2.40 | 2.80 | 1.50 | 1.80 | 2.00 | 1.60 |
| 17 | 2.20 | 1.50 | 2.60 | 1.60 | 1.60 | 1.70 | 2.00 | 2.20 | 1.50 | 1.70 | 2.80 | 1.60 |
| 18 | 2.00 | 1.80 | 2.30 | 1.60 | 1.80 | 2.10 | 1.80 | 2.00 | 1.60 | 1.70 | 1.70 | 1.80 |
| 19 | 2.00 | 2.00 | 2.80 | 1.70 | 1.70 | 2.00 | 1.80 | 1.80 | 1.60 | 1.70 | 1.80 | 2.00 |
| 20 | 3.00 | 2.10 | 2.00 | 1.70 | 1.70 | 2.00 | 2.00 | 3.50 | 1.50 | 2.30 | 1.70 | 2.80 |
| 21 | 2.60 | 2.20 | 1.90 | 1.70 | 1.80 | 1.90 | 1.80 | 5.70 | 1.50 | 2.50 | 1.80 | 2.00 |
| 22 | 2.60 | 2.00 | 1.90 | 1.90 | 1.80 | 1.80 | 2.10 | 4.10 | 1.50 | 5.05 | 2.00 | 2.40 |
| 23 | 2.60 | 2.10 | 1.80 | 2.00 | 2.95 | 1.80 | 2.90 | 2.70 | 5.65 | 5.70 | 2.30 | 2.10 |
| 24 | 3.00 | 1.80 | 1.80 | 2.30 | 5.35 | 1.70 | 2.80 | 2.60 | 13.40 | 3.80 | 2.00 | 1.90 |
| 25 | 3.90 | 1.80 | 1.80 | 3.10 | 3.00 | 1.70 | 3.00 | 1.70 | 14.80 | 3.80 | 2.10 | 2.00 |
| 26 | 4.00 | 1.80 | 1.80 | 2.20 | 2.80 | 1.70 | 2.80 | 1.90 | 6.20 | 2.60 | 1.90 | 2.00 |
| 27 | 3.20 | 1.60 | 1.90 | 2.20 | 2.00 | 1.60 | 3.00 | 2.20 | 2.20 | 2.00 | 1.90 | 2.00 |
| 28 | 2.80 | 1.60 | 2.00 | 1.90 | 2.00 | 1.60 | 3.00 | 2.00 | 1.80 | 1.90 | 1.80 | 1.90 |
| 29 | 2.60 | ------- | 2.10 | 1.80 | 1.90 | 1.80 | 4.60 | 1.80 | 1.80 | 1.90 | 1.80 | 1.80 |
| 30 | 2.60 | ------- | 3.60 | 1.80 | 1.70 | 1.80 | 3.90 | 4.95 | 1.90 | 1.80 | 1.80 | 2.00 |
| 31 | 2.40 | ------- | 6.10 | ------- | 1.70 | ------- | 2.00 | 4.00 | ------- | 2.00 | ------ | 2.80 |
| 1899. | | | | | | | | | | | | |
| 1 | 1.00 | 3.20 | 4.70 | 4.30 | 3.10 | 2.40 | 2.20 | 2.80 | 2.00 | 1.60 | 2.00 | 1.90 |
| 2 | 2.00 | 3.00 | 4.00 | 3.90 | 3.10 | 2.90 | 2.10 | 2.30 | 2.10 | 1.60 | 2.20 | 1.90 |
| 3 | 2.10 | 2.90 | 6.10 | 3.80 | 3.10 | 2.60 | 2.10 | 2.20 | 2.20 | 1.60 | 2.20 | 1.90 |
| 4 | 2.00 | 2.90 | 8.00 | 4.10 | 3.10 | 2.60 | 2.50 | 2.00 | 2.10 | 1.60 | 2.40 | 1.80 |
| 5 | 3.10 | 7.50 | 8.00 | 4.20 | 3.00 | 2.50 | 3.20 | 2.00 | 2.10 | 1.70 | 2.20 | 1.80 |
| 6 | 4.00 | 8.75 | 7.15 | 4.70 | 2.90 | 2.40 | 2.50 | 1.80 | 1.90 | 1.70 | 2.00 | 1.80 |
| 7 | 10.20 | 10.10 | 5.90 | 4.80 | 3.20 | 2.40 | 2.30 | 1.80 | 1.80 | 1.80 | 1.90 | 1.80 |
| 8 | 5.90 | 9.20 | 4.10 | 7.80 | 4.40 | 2.40 | 2.30 | 2.30 | 1.70 | 2.90 | 1.90 | 1.70 |
| 9 | 4.80 | 6.30 | 3.90 | 5.90 | 4.00 | 2.40 | 2.20 | 2.10 | 1.70 | 3.00 | 1.80 | 1.70 |
| 10 | 4.00 | 4.00 | 3.70 | 4.70 | 3.50 | 3.10 | 2.20 | 2.00 | 2.20 | 2.40 | 1.70 | 1.70 |
| 11 | 3.00 | 3.30 | 3.50 | 4.20 | 3.40 | 3.30 | 2.10 | 2.00 | 2.00 | 2.10 | 1.70 | 1.70 |
| 12 | 4.40 | 3.40 | 3.40 | 3.80 | 3.30 | 3.80 | 2.10 | 1.90 | 1.90 | 1.90 | 1.70 | 2.00 |
| 13 | 4.00 | 2.90 | 3.30 | 3.80 | 4.10 | 4.80 | 2.00 | 2.10 | 1.90 | 1.90 | 1.70 | 3.80 |
| 14 | 4.50 | 2.90 | 5.20 | 3.80 | 4.10 | 3.90 | 2.00 | 2.00 | 1.70 | 2.00 | 1.70 | 3.40 |
| 15 | 4.40 | 2.20 | 8.50 | 3.70 | 3.60 | 3.20 | 1.90 | 1.90 | 1.70 | 1.90 | 1.70 | 2.90 |
| 16 | 4.10 | 3.00 | 12.40 | 3.70 | 3.10 | 2.60 | 1.90 | 1.90 | 1.60 | 1.80 | 1.70 | 2.10 |
| 17 | 3.70 | 5.10 | 7.90 | 3.60 | 3.00 | 2.50 | 1.90 | 1.80 | 1.60 | 1.80 | 1.70 | 2.00 |
| 18 | 3.50 | 6.00 | 6.70 | 3.50 | 3.00 | 2.40 | 2.30 | 1.70 | 1.60 | 1.80 | 1.70 | 1.90 |
| 19 | 3.20 | 5.00 | 12.00 | 3.40 | 2.90 | 2.40 | 2.20 | 1.70 | 1.50 | 1.80 | 1.70 | 1.90 |
| 20 | 3.10 | 4.60 | 17.80 | 3.40 | 2.80 | 2.30 | 2.10 | 1.80 | 4.20 | 1.80 | 1.70 | 1.90 |
| 21 | 2.80 | 4.00 | 13.75 | 3.40 | 2.70 | 2.30 | 1.90 | 1.60 | 2.90 | 1.80 | 1.70 | 1.70 |
| 22 | 2.90 | 3.90 | 6.50 | 3.30 | 2.70 | 2.30 | 1.90 | 1.60 | 2.20 | 1.80 | 1.70 | 1.70 |
| 23 | 2.80 | 3.60 | 5.30 | 3.20 | 2.90 | 2.30 | 1.90 | 1.60 | 1.90 | 1.70 | 1.70 | 1.70 |
| 24 | 2.90 | 3.10 | 4.80 | 3.20 | 3.00 | 2.20 | 1.90 | 1.50 | 1.70 | 1.70 | 1.70 | 2.00 |
| 25 | 2.80 | 3.10 | 4.40 | 3.30 | 2.80 | 2.20 | 2.00 | 1.50 | 1.70 | 1.70 | 1.70 | 2.40 |
| 26 | 2.80 | 3.00 | 4.30 | 4.10 | 2.70 | 2.80 | 2.70 | 1.50 | 1.70 | 1.70 | 1.70 | 2.40 |
| 27 | 2.80 | 5.40 | 5.40 | 4.10 | 2.70 | 3.00 | 4.30 | 1.60 | 1.70 | 1.70 | 1.80 | 2.10 |
| 28 | 2.90 | 7.80 | 5.40 | 3.80 | 2.60 | 2.00 | 3.20 | 2.00 | 1.60 | 1.70 | 1.80 | 1.90 |
| 29 | 2.80 | ------- | 6.30 | 3.40 | 2.60 | 2.40 | 3.00 | 2.20 | 1.60 | 1.70 | 1.90 | 1.80 |
| 30 | 2.70 | ------- | 5.30 | 3.30 | 2.60 | 2.20 | 2.80 | 2.20 | 1.50 | 1.70 | 1.90 | 1.80 |
| 31 | 3.30 | ------- | 4.50 | ------- | 2.50 | ------- | 3.50 | 1.90 | ------- | 1.70 | ------ | 1.70 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1900 AND 1901.

| 1900. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.50 | 1.50 | 4.60 | 2.60 | 2.70 | 2.37 | 2.90 | 2.35 | 2.10 | 2.60 | 2.30 | 2.70 |
| 2 | 1.50 | 1.50 | 9.50 | 2.60 | 2.60 | 2.40 | 2.73 | 2.20 | 1.90 | 2.10 | 2.30 | 2.60 |
| 3 | 1.60 | 1.50 | 6.90 | 2.50 | 2.50 | 2.30 | 2.55 | 2.10 | 1.90 | 1.90 | 2.30 | 2.50 |
| 4 | 1.60 | 1.70 | 4.40 | 2.60 | 2.50 | 2.50 | 2.50 | 2.10 | 1.90 | 1.90 | 2.70 | 3.60 |
| 5 | 1.60 | 2.80 | 3.50 | 2.50 | 2.40 | 2.50 | 2.45 | 2.20 | 1.90 | 2.00 | 3.05 | 6.63 |
| 6 | 1.60 | 2.70 | 3.00 | 2.40 | 2.40 | 2.41 | 2.50 | 1.95 | 1.85 | 2.20 | 2.75 | 4.80 |
| 7 | 2.00 | 2.50 | 2.90 | 2.30 | 2.40 | 2.44 | 2.30 | 1.95 | 1.80 | 2.10 | 2.40 | 3.55 |
| 8 | 2.10 | 2.30 | 2.90 | 2.30 | 2.30 | 2.37 | 2.40 | 1.95 | 1.75 | 2.10 | 2.30 | 3.10 |
| 9 | 2.20 | 2.30 | 4.30 | 2.30 | 2.40 | 2.55 | 2.35 | 1.95 | 1.75 | 2.30 | 2.30 | 2.80 |
| 10 | 2.30 | 2.90 | 4.40 | 2.20 | 2.40 | 2.55 | 2.35 | 1.95 | 1.70 | 2.60 | 2.20 | 2.65 |
| 11 | 2.50 | 3.90 | 4.20 | 2.20 | 2.30 | 2.40 | 2.25 | 1.90 | 1.85 | 2.20 | 2.25 | 2.50 |
| 12 | 4.30 | 4.10 | 3.50 | 2.50 | 2.30 | 2.30 | 2.25 | 1.85 | 1.70 | 2.05 | 2.30 | 2.50 |
| 13 | ------- | 6.00 | 3.30 | 2.70 | 2.30 | 2.30 | 2.25 | 1.85 | 1.65 | 2.05 | 2.20 | 2.50 |
| 14 | 3.90 | 9.10 | 3.00 | 2.60 | 2.30 | 2.70 | 2.50 | 1.80 | 1.65 | 2.10 | 2.20 | 2.50 |
| 15 | 3.00 | 6.00 | 2.70 | 2.00 | 2.10 | 2.85 | 2.40 | 2.00 | 1.65 | 2.05 | 2.15 | 2.45 |
| 16 | 2.50 | 4.10 | 4.50 | 2.40 | 2.10 | 2.65 | 2.22 | 1.85 | 4.10 | 2.20 | 2.15 | 2.47 |
| 17 | 2.30 | 3.20 | 6.10 | 2.30 | 2.10 | 4.78 | 2.15 | 1.90 | 4.95 | 2.10 | 2.15 | 2.40 |
| 18 | 2.30 | 2.80 | 4.60 | 2.30 | 2.40 | 4.54 | 2.00 | 2.00 | 2.80 | 2.00 | 2.15 | 2.35 |
| 19 | 2.30 | 2.40 | 4.60 | 9.95 | 2.50 | 4.52 | 1.90 | 1.90 | 2.20 | 2.00 | 2.15 | 2.40 |
| 20 | 4.90 | 2.30 | 3.70 | 10.60 | 2.40 | 3.47 | 2.00 | 1.85 | 2.00 | 2.00 | 2.20 | 2.40 |
| 21 | 5.50 | 2.40 | 4.60 | 6.00 | 2.30 | 2.95 | 2.00 | 1.85 | 2.00 | 1.90 | 2.35 | 2.70 |
| 22 | 4.90 | 5.60 | 3.80 | 7.00 | 2.10 | 2.65 | 2.45 | 1.90 | 2.00 | 2.00 | 2.30 | 3.30 |
| 23 | 3.00 | 6.30 | 3.20 | 6.70 | 2.10 | 3.57 | 2.30 | 2.60 | 2.25 | 2.00 | 2.25 | 3.30 |
| 24 | 2.60 | 4.30 | 3.00 | 4.50 | 2.10 | 7.00 | 2.65 | 3.05 | 2.10 | 4.55 | 2.20 | 3.30 |
| 25 | 2.40 | 3.80 | 2.80 | 3.90 | 4.00 | 4.68 | 2.65 | 2.25 | 2.00 | 6.81 | 2.20 | 3.20 |
| 26 | 2.90 | 3.50 | 3.90 | 3.50 | 3.20 | 4.40 | 2.55 | 2.30 | 1.90 | 3.45 | 4.08 | 2.90 |
| 27 | 2.30 | 2.90 | 3.80 | 3.30 | 2.70 | 4.35 | 3.30 | 2.10 | 1.90 | 2.90 | 7.85 | 2.70 |
| 28 | 2.20 | 2.90 | 3.40 | 3.10 | 2.30 | 3.45 | 3.05 | 2.00 | 1.90 | 2.60 | 3.90 | 2.60 |
| 29 | 2.20 | ------- | 3.00 | 2.90 | 2.30 | 3.55 | 2.55 | 1.90 | 1.90 | 2.50 | 3.20 | 2.55 |
| 30 | 2.00 | ------- | 2.90 | 2.70 | 2.10 | 3.50 | 2.30 | 1.90 | 1.75 | 2.30 | 2.80 | 2.55 |
| 31 | 1.90 | ------- | 2.80 | ------- | 2.10 | ------- | 2.20 | 2.05 | ------- | 2.35 | ------ | 3.25 |
| 1901. | | | | | | | | | | | | |
| 1 | 3.45 | 2.50 | 2.35 | 3.70 | 3.20 | 3.60 | 5.20 | 2.95 | 4.55 | 5.20 | 2.70 | 2.60 |
| 2 | 3.05 | 2.50 | 2.35 | 3.25 | 3.15 | 3.50 | 4.85 | 2.82 | 4.70 | 4.00 | 2.70 | 2.60 |
| 3 | 2.80 | 2.45 | 2.35 | 10.00 | 3.10 | 3.40 | 3.60 | 2.75 | 3.95 | 3.85 | 2.65 | 2.55 |
| 4 | 2.65 | 3.15 | 2.45 | 10.85 | 3.05 | 3.25 | 3.40 | 2.65 | 3.70 | 3.45 | 2.70 | 2.95 |
| 5 | 2.50 | 3.35 | 2.40 | 6.70 | 3.00 | 3.30 | 3.25 | 2.70 | 3.50 | 3.20 | 2.70 | 3.10 |
| 6 | 2.50 | 3.05 | 2.35 | 4.40 | 3.00 | 8.10 | 3.15 | 5.77 | 3.40 | 3.05 | 2.70 | 2.75 |
| 7 | 2.50 | 2.72 | 2.35 | 3.80 | 2.90 | 3.60 | 3.40 | 11.38 | 3.25 | 3.00 | 2.65 | 2.60 |
| 8 | 2.50 | 2.50 | 2.35 | 3.50 | 3.05 | 3.85 | 4.35 | 9.92 | 3.25 | 2.95 | 2.60 | 2.60 |
| 9 | 2.50 | 2.65 | 2.35 | 3.25 | 3.45 | 3.40 | 4.60 | 4.80 | 3.20 | 2.95 | 2.60 | 2.65 |
| 10 | 2.45 | 3.00 | 2.40 | 3.05 | 3.60 | 3.15 | 4.22 | 3.80 | 3.15 | 2.90 | 2.65 | 2.60 |
| 11 | 3.10 | 2.85 | 2.60 | 3.00 | 4.00 | 3.10 | 3.40 | 3.50 | 3.15 | 2.85 | 2.60 | 2.90 |
| 12 | 5.30 | 2.75 | 4.00 | 2.85 | 3.65 | 3.00 | 3.15 | 3.95 | 3.30 | 2.85 | 2.60 | 2.85 |
| 13 | 8.23 | 2.70 | 3.10 | 2.80 | 3.20 | 2.90 | 3.00 | 5.32 | 3.10 | 2.90 | 2.60 | 2.75 |
| 14 | 4.83 | 2.60 | 2.70 | 3.30 | 2.95 | 2.95 | 3.35 | 9.28 | 3.10 | 4.00 | 2.65 | 2.75 |
| 15 | 3.80 | 2.56 | 2.60 | 4.60 | 2.85 | 5.85 | 8.08 | 10.45 | 3.00 | 3.30 | 2.60 | 6.17 |
| 16 | 3.35 | 2.55 | 2.45 | 3.65 | 2.75 | 8.80 | 6.95 | 9.82 | 3.00 | 3.00 | 2.60 | 8.58 |
| 17 | 3.05 | 2.55 | 2.45 | 3.25 | 2.95 | 9.00 | 5.15 | 7.75 | 3.35 | 2.85 | 2.60 | 5.10 |
| 18 | 3.00 | 2.55 | 2.45 | 3.05 | 3.60 | 7.57 | 4.45 | 7.70 | 3.85 | 2.80 | 2.60 | 3.90 |
| 19 | 2.80 | 2.50 | 2.40 | 3.00 | 2.90 | 4.40 | 5.28 | 6.20 | 4.60 | 2.80 | 2.50 | 3.35 |
| 20 | 2.70 | 2.50 | 2.40 | 7.50 | 3.30 | 4.78 | 5.05 | 5.40 | 3.60 | 2.80 | 2.55 | 3.10 |
| 21 | 2.70 | 2.45 | 2.40 | 15.90 | 3.45 | 4.50 | 3.75 | 4.75 | 3.20 | 2.80 | 3.50 | 2.90 |
| 22 | 2.60 | 2.40 | 2.45 | 11.25 | 9.52 | 4.45 | 3.55 | 4.25 | 3.05 | 2.75 | 2.55 | 2.75 |
| 23 | 2.60 | 2.40 | 2.50 | 5.22 | 14.83 | 6.25 | 3.20 | 4.55 | 3.00 | 2.75 | 2.55 | 2.50 |
| 24 | 2.60 | 2.40 | 2.40 | 4.53 | 10.50 | 6.65 | 3.00 | 6.60 | 2.95 | 2.70 | 3.00 | 2.90 |
| 25 | 2.60 | 2.40 | 2.40 | 4.07 | 5.15 | 5.15 | 2.90 | 5.87 | 2.90 | 2.70 | 3.40 | 3.20 |
| 26 | 2.55 | 2.30 | 6.65 | 3.80 | 4.20 | 4.68 | 2.85 | 6.15 | 2.85 | 2.70 | 2.85 | 3.20 |
| 27 | 2.50 | 2.45 | 9.92 | 3.60 | 4.80 | 4.60 | 2.80 | 6.15 | 2.85 | 2.70 | 2.65 | 3.40 |
| 28 | 2.50 | 2.40 | 7.58 | 3.50 | 6.33 | 4.25 | 2.85 | 5.53 | 2.90 | 2.70 | 2.60 | 4.25 |
| 29 | 2.45 | ------- | 4.60 | 3.35 | 5.33 | 3.55 | 2.90 | 5.87 | 4.50 | 2.65 | 2.60 | 8.20 |
| 30 | 2.45 | ------- | 3.60 | 3.25 | 4.35 | 5.00 | 2.70 | 6.10 | 5.80 | 2.70 | 2.60 | 15.72 |
| 31 | 2.50 | ------- | 3.60 | ------- | 3.90 | ------- | 2.75 | 4.70 | ------- | 2.70 | ------ | 17.97 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1902 AND 1903.

| 1902. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.60 | 3.95 | 9.45 | 4.20 | 2.90 | 2.50 | 2.85 | 2.00 | 1.95 | 2.05 | 2.10 | 5.00 |
| 2 | 2.60 | 5.75 | 7.03 | 3.70 | 2.80 | 2.50 | 2.80 | 2.80 | 1.85 | 2.05 | 2.15 | 4.50 |
| 3 | 2.55 | 6.17 | 5.35 | 3.45 | 2.80 | 2.50 | 2.35 | 2.70 | 1.80 | 2.15 | 2.18 | 6.00 |
| 4 | 2.95 | 4.95 | 4.65 | 3.35 | 2.85 | 2.35 | 2.30 | 2.50 | 2.05 | 2.10 | 2.08 | 5.82 |
| 5 | 3.55 | 3.90 | 4.10 | 3.35 | 2.80 | 2.35 | 2.30 | 2.05 | 2.45 | 2.18 | 2.25 | 4.60 |
| 6 | 3.40 | 3.40 | 4.05 | 3.40 | 2.80 | 2.15 | 2.30 | 2.00 | 2.20 | 3.52 | 2.10 | 5.30 |
| 7 | 3.30 | 3.25 | 3.80 | 3.25 | 2.85 | 2.25 | 2.40 | 2.00 | 1.90 | 4.55 | 2.80 | 3.98 |
| 8 | 3.25 | 3.20 | 3.50 | 3.35 | 2.85 | 2.40 | 2.20 | 2.10 | 1.85 | 2.90 | 2.55 | 3.34 |
| 9 | 3.20 | 3.10 | 3.50 | 3.80 | 2.85 | 2.70 | 2.40 | 2.05 | 2.10 | 2.50 | 2.30 | 2.95 |
| 10 | 3.15 | 3.05 | 3.55 | 3.45 | 2.75 | 2.40 | 2.40 | 2.00 | 4.50 | 2.30 | 2.30 | 2.70 |
| 11 | 3.15 | 3.00 | 3.40 | 3.25 | 2.55 | 2.35 | 3.00 | 2.10 | 3.30 | 2.30 | 2.08 | 2.65 |
| 12 | 3.15 | 2.90 | 3.30 | 3.15 | 2.75 | 2.88 | 2.60 | 2.10 | 2.50 | 2.95 | 2.05 | 2.60 |
| 13 | 3.00 | 2.90 | 3.25 | 3.20 | 2.65 | 2.60 | 2.40 | 2.10 | 2.15 | 3.50 | 2.08 | 2.95 |
| 14 | 2.90 | 2.85 | 3.25 | 3.10 | 2.70 | 2.50 | 2.40 | 3.42 | 2.00 | 2.75 | 2.08 | 3.15 |
| 15 | 2.85 | 2.80 | 3.20 | 3.10 | 2.70 | 2.65 | 2.25 | 4.25 | 2.00 | 2.44 | 2.00 | 2.85 |
| 16 | 2.95 | 2.90 | 3.20 | 3.10 | 3.20 | 6.21 | 2.05 | 3.45 | 2.00 | 2.25 | 2.10 | 2.70 |
| 17 | 2.95 | 2.90 | 5.65 | 3.10 | 2.90 | 12.48 | 2.15 | 3.15 | 1.97 | 2.12 | 2.15 | 3.45 |
| 18 | 2.95 | 2.85 | 5.00 | 3.30 | 2.90 | 9.57 | 2.05 | 2.50 | 1.85 | 2.10 | 3.67 | 4.52 |
| 19 | 2.90 | 2.85 | 3.95 | 3.35 | 3.00 | 4.95 | 1.95 | 2.15 | 1.90 | 2.25 | 4.90 | 3.50 |
| 20 | 2.85 | 2.85 | 3.50 | 3.20 | 2.90 | 3.30 | 2.10 | 2.00 | 1.85 | 2.15 | 3.80 | 3.05 |
| 21 | 2.85 | 2.90 | 3.30 | 3.20 | 2.95 | 2.90 | 2.20 | 2.00 | 1.85 | 2.25 | 2.80 | 2.88 |
| 22 | 3.90 | 3.45 | 3.30 | 3.10 | 2.80 | 2.75 | 2.40 | 2.10 | 2.00 | 2.05 | 2.45 | 3.97 |
| 23 | 3.85 | 4.20 | 3.30 | 3.00 | 2.80 | 2.62 | 2.50 | 2.55 | 1.85 | 1.70 | 2.40 | 4.50 |
| 24 | 3.30 | 3.80 | 3.20 | 3.00 | 2.65 | 2.50 | 2.10 | 2.20 | 1.80 | 1.70 | 2.35 | 3.60 |
| 25 | 3.15 | 6.23 | 3.25 | 2.95 | 2.65 | 2.50 | 2.00 | 2.10 | 1.95 | 1.90 | 2.20 | 3.15 |
| 26 | 3.10 | 8.37 | 3.10 | 2.95 | 2.85 | 2.60 | 2.00 | 1.90 | 1.90 | 2.10 | 3.00 | 2.90 |
| 27 | 3.00 | 6.40 | 3.05 | 2.90 | 2.85 | 2.60 | 1.95 | 1.85 | 3.85 | 2.05 | 3.30 | 2.75 |
| 28 | 3.35 | 4.95 | 3.05 | 2.95 | 2.70 | 3.85 | 2.20 | 1.95 | 3.00 | 2.95 | 2.90 | 2.60 |
| 29 | 3.35 | ------- | 4.00 | 2.90 | 2.60 | 4.30 | 2.15 | 1.90 | 2.40 | 2.95 | 2.50 | 2.60 |
| 30 | 3.40 | ------- | 7.80 | 2.95 | 2.50 | 3.25 | 2.00 | 1.88 | 2.00 | 2.65 | 2.50 | 2.65 |
| 31 | 3.55 | ------- | 5.75 | ------- | 2.45 | ------- | 2.00 | 1.75 | ------- | 2.20 | ------ | 2.75 |
| 1903. | | | | | | | | | | | | |
| 1 | 2.55 | 3.00 | 7.55 | 6.35 | 3.20 | 3.30 | 2.70 | 2.55 | 2.75 | 1.80 | 1.82 | 1.80 |
| 2 | 2.40 | 2.85 | 5.90 | 4.70 | 3.15 | 2.88 | 2.40 | 5.00 | 1.85 | 1.80 | 1.90 | 1.75 |
| 3 | 10.40 | 2.80 | 4.30 | 4.25 | 3.05 | 2.80 | 2.40 | 3.10 | 2.19 | 1.90 | 1.75 | 1.80 |
| 4 | 10.05 | 4.40 | 3.70 | 4.10 | 3.15 | 2.80 | 2.45 | 2.40 | 2.08 | 1.85 | 1.76 | 1.74 |
| 5 | 6.07 | 8.67 | 3.50 | 4.95 | 3.15 | 2.84 | 2.50 | 3.40 | 1.94 | 1.95 | 2.38 | 1.75 |
| 6 | 4.47 | 6.60 | 3.38 | 4.10 | 3.10 | 3.80 | 2.60 | 3.00 | 1.88 | 1.79 | 2.85 | 1.88 |
| 7 | 3.79 | 4.05 | 3.45 | 3.80 | 3.05 | 8.30 | 3.60 | 2.90 | 2.20 | 1.86 | 2.30 | 1.90 |
| 8 | 3.45 | 5.50 | 3.50 | 7.25 | 3.00 | 9.40 | 2.90 | 2.30 | 2.10 | 1.83 | 1.96 | 1.75 |
| 9 | 3.15 | 6.50 | 5.66 | 10.65 | 2.95 | 4.60 | 2.50 | 2.10 | 3.80 | 3.81 | 2.00 | 1.65 |
| 10 | 2.90 | 5.00 | 4.72 | 7.50 | 2.70 | 3.50 | 2.50 | 2.05 | 3.85 | 2.96 | 1.80 | 1.68 |
| 11 | 2.80 | 4.45 | 5.20 | 5.10 | 2.95 | 3.85 | 2.20 | 1.85 | 2.19 | 2.22 | 1.80 | 1.80 |
| 12 | 3.35 | 6.45 | 5.59 | 4.35 | 2.85 | 3.75 | 2.35 | 2.40 | 1.95 | 2.09 | 1.75 | 1.62 |
| 13 | 3.40 | 5.65 | 5.15 | 4.55 | 2.80 | 3.25 | 2.55 | 3.15 | 1.90 | 1.86 | 1.72 | 1.88 |
| 14 | 2.90 | 4.25 | 4.45 | 6.95 | 2.90 | 2.88 | 3.70 | 2.75 | 1.92 | 1.65 | 1.75 | 2.02 |
| 15 | 2.80 | 3.70 | 4.00 | 7.15 | 2.90 | 2.80 | 2.80 | 2.80 | 1.80 | 1.84 | 1.85 | 1.90 |
| 16 | 2.80 | 3.50 | 3.70 | 5.50 | 2.90 | 2.65 | 2.50 | 4.20 | 1.80 | 1.81 | 1.90 | 1.80 |
| 17 | 2.75 | 9.95 | 3.50 | 4.35 | 2.80 | 2.55 | 2.20 | 3.15 | 6.25 | 1.89 | 1.78 | 1.70 |
| 18 | 2.78 | 10.50 | 3.40 | 3.95 | 2.70 | 2.85 | 2.15 | 3.70 | 7.00 | 2.06 | 2.78 | 1.70 |
| 19 | 2.60 | 5.65 | 3.55 | 3.70 | 2.70 | 2.85 | 2.10 | 4.05 | 4.02 | 2.53 | 2.90 | 1.70 |
| 20 | 2.55 | 4.12 | 3.25 | 3.65 | 2.65 | 2.55 | 3.30 | 3.05 | 2.80 | 2.02 | 2.30 | 1.75 |
| 21 | 2.60 | 3.75 | 4.05 | 3.80 | 2.65 | 2.60 | 2.25 | 2.85 | 2.25 | 1.91 | 1.90 | 2.35 |
| 22 | 3.70 | 3.55 | 8.30 | 3.88 | 2.65 | 2.60 | 2.05 | 2.40 | 2.02 | 1.96 | 2.00 | 2.60 |
| 23 | 3.50 | 3.45 | 10.30 | 3.60 | 2.60 | 2.80 | 1.95 | 2.20 | 1.82 | 1.86 | 2.04 | 2.20 |
| 24 | 3.10 | 3.25 | 15.40 | 3.55 | 2.55 | 2.45 | 2.20 | 2.12 | 1.85 | 1.85 | 1.70 | 2.05 |
| 25 | 3.00 | 3.20 | 10.60 | 3.44 | 2.55 | 2.80 | 1.85 | 1.90 | 1.87 | 1.85 | 1.80 | 2.05 |
| 26 | 2.90 | 3.15 | 6.00 | 3.50 | 2.55 | 2.80 | 1.90 | 2.00 | 1.87 | 1.94 | 1.80 | 2.15 |
| 27 | 2.75 | 3.05 | 4.50 | 3.65 | 2.68 | 3.65 | 1.95 | 1.75 | 1.96 | 1.74 | 1.80 | 2.15 |
| 28 | 3.65 | 4.15 | 4.15 | 3.58 | 2.65 | 3.70 | 1.75 | 1.79 | 1.95 | 1.75 | 1.75 | 1.98 |
| 29 | 4.10 | ------- | 3.95 | 3.32 | 4.40 | 3.30 | 1.85 | 1.80 | 1.75 | 1.64 | 1.82 | 1.75 |
| 30 | 3.45 | ------- | 5.50 | 3.25 | 3.10 | 3.15 | 2.55 | 1.85 | 1.85 | 1.70 | 1.90 | 1.88 |
| 31 | 3.10 | ------- | 8.80 | ------- | 3.18 | ------- | 2.55 | 2.84 | ------- | 1.72 | ------ | 1.80 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., 1904 AND 1905.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.75 | 1.95 | 2.46 | 2.00 | 1.85 | 2.30 | 4.20 | 2.35 | 1.65 | 1.35 | 1.35 | 1.45 |
| 2 | 1.85 | 1.74 | 2.35 | 2.05 | 1.95 | 4.65 | 3.05 | 2.25 | 3.10 | 1.25 | 1.35 | 1.50 |
| 3 | 1.90 | 1.80 | 2.25 | 1.95 | 1.75 | 5.10 | 2.60 | 3.00 | 3.00 | 1.25 | 1.35 | 1.95 |
| 4 | 1.92 | 1.88 | 2.20 | 2.05 | 1.80 | 3.10 | 2.25 | 2.55 | 2.35 | 1.30 | 1.50 | 2.30 |
| 5 | 1.65 | 1.90 | 2.15 | 1.90 | 2.05 | 2.55 | 2.05 | 2.05 | 2.80 | 1.25 | 1.75 | 2.15 |
| 6 | 1.30 | 1.85 | 2.00 | 1.85 | 2.10 | 2.30 | 1.85 | 2.40 | 3.15 | 1.30 | 2.10 | 3.00 |
| 7 | 1.45 | 2.05 | 2.20 | 1.85 | 1.90 | 2.10 | 2.10 | 2.65 | 2.50 | 1.30 | 2.05 | 3.05 |
| 8 | 1.85 | 3.35 | 5.20 | 1.95 | 2.20 | 3.00 | 1.90 | 4.85 | 2.15 | 1.35 | 1.60 | 2.55 |
| 9 | 1.85 | 3.45 | 4.55 | 1.90 | 2.35 | 2.45 | 1.80 | 3.70 | 1.80 | 1.35 | 1.50 | 2.00 |
| 10 | 1.90 | 2.75 | 3.25 | 2.35 | 2.75 | 2.05 | 2.05 | 3.50 | 1.70 | 1.30 | 1.45 | 1.90 |
| 11 | 1.98 | 2.25 | 2.75 | 2.20 | 2.25 | 2.25 | 2.45 | 3.65 | 2.05 | 1.30 | 1.50 | 1.80 |
| 12 | 1.85 | 2.15 | 2.50 | 1.90 | 2.25 | 4.20 | 1.95 | 3.80 | 1.80 | 1.30 | 1.50 | 1.85 |
| 13 | 1.80 | 2.10 | 2.40 | 1.85 | 2.00 | 3.25 | 1.85 | 3.00 | 1.60 | 1.25 | 1.45 | 1.70 |
| 14 | 1.85 | 2.04 | 2.40 | 1.80 | 1.85 | 2.30 | 1.80 | 2.45 | 1.65 | 1.30 | 2.70 | 1.70 |
| 15 | 1.82 | 2.10 | 2.35 | 1.80 | 2.35 | 2.00 | 1.65 | 2.15 | 1.60 | 1.20 | 2.65 | 1.65 |
| 16 | 1.78 | 2.00 | 2.25 | 1.80 | 2.35 | 1.90 | 1.85 | 2.80 | 1.60 | 1.10 | 2.05 | 1.65 |
| 17 | 1.78 | 1.96 | 2.05 | 1.90 | 1.95 | 1.85 | 1.85 | 3.80 | 1.60 | 1.25 | 1.70 | 1.65 |
| 18 | 1.90 | 1.80 | 1.95 | 1.95 | 2.00 | 2.60 | 1.85 | 2.90 | 1.50 | 1.20 | 1.60 | 1.70 |
| 19 | 1.64 | 1.75 | 1.95 | 1.75 | 6.60 | 2.50 | 1.65 | 2.25 | 1.50 | 1.20 | 1.60 | 1.85 |
| 20 | 1.70 | 3.00 | 2.10 | 1.75 | 4.25 | 2.50 | 1.55 | 2.00 | 1.50 | 1.30 | 1.50 | 1.70 |
| 21 | 1.68 | 2.80 | 2.10 | 1.70 | 2.85 | 2.35 | 1.55 | 2.50 | 1.50 | 1.25 | 1.65 | 1.65 |
| 22 | 1.68 | 3.95 | 1.95 | 1.70 | 2.40 | 2.10 | 1.70 | 2.85 | 1.50 | 1.30 | 1.50 | 1.60 |
| 23 | 1.95 | 5.10 | 2.05 | 1.70 | 2.30 | 2.25 | 2.15 | 2.45 | 1.50 | 1.20 | 1.55 | 1.60 |
| 24 | 2.60 | 4.20 | 2.30 | 1.70 | 2.00 | 1.90 | 3.55 | 2.30 | 1.50 | 1.20 | 1.60 | 1.65 |
| 25 | 2.38 | 3.10 | 4.40 | 1.90 | 1.95 | 1.80 | 2.85 | 2.45 | 1.40 | 1.20 | 1.60 | 1.85 |
| 26 | 1.95 | 2.55 | 3.30 | 1.75 | 1.85 | 1.65 | 2.25 | 2.50 | 1.45 | 1.30 | 1.55 | 1.95 |
| 27 | 1.85 | 2.48 | 2.65 | 2.00 | 1.90 | 1.75 | 2.30 | 1.90 | 1.45 | 1.35 | 1.45 | 2.05 |
| 28 | 1.92 | 2.70 | 2.70 | 2.30 | 1.85 | 2.05 | 2.55 | 1.95 | 1.40 | 1.35 | 1.55 | 2.65 |
| 29 | 1.75 | 2.68 | 2.35 | 2.00 | 1.75 | 4.05 | 3.15 | 1.90 | 1.50 | 1.35 | 1.50 | 2.85 |
| 30 | 1.60 | ..... | 2.10 | 1.90 | 1.85 | 6.35 | 5.05 | 1.65 | 1.35 | 1.30 | 1.45 | 2.50 |
| 31 | 1.78 | ..... | 2.05 | ..... | 1.70 | ..... | 3.00 | 1.65 | ..... | 1.30 | ..... | 2.05 |
| 1905. | | | | | | | | | | | | |
| 1 | 1.9 | 1.85 | 3.0 | 2.0 | 2.1 | 2.6 | 1.6 | 2.35 | 1.95 | 1.55 | 1.70 | 1.6 |
| 2 | 2.0 | 1.9 | 2.85 | 2.0 | 1.85 | 2.15 | 1.9 | 2.0 | 1.9 | 1.7 | 1.65 | 1.6 |
| 3 | 1.85 | 1.8 | 2.7 | 2.0 | 1.85 | 1.85 | 2.25 | 1.9 | 2.2 | 1.6 | 1.65 | 1.8 |
| 4 | 1.9 | 1.7 | 2.6 | 1.8 | 2.0 | 2.0 | 2.05 | 1.9 | 2.4 | 1.6 | 1.6 | 4.1 |
| 5 | 1.8 | 1.75 | 2.55 | 1.85 | 2.15 | 2.0 | 2.55 | 2.1 | 2.1 | 1.7 | 1.6 | 3.2 |
| 6 | 1.65 | 1.7 | 2.5 | 3.0 | 3.6 | 1.75 | 5.0 | 2.75 | 2.9 | 1.65 | 1.75 | 2.25 |
| 7 | 3.6 | 1.7 | 2.25 | 3.9 | 5.4 | 1.7 | 5.0 | 2.6 | 2.1 | 1.6 | 1.65 | 1.9 |
| 8 | 4.4 | 2.15 | 2.2 | 3.0 | 5.6 | 1.7 | 3.2 | 2.25 | 2.0 | 1.5 | 1.65 | 1.8 |
| 9 | 3.3 | 1.8 | 2.3 | 2.5 | 4.4 | 1.6 | 2.45 | 4.4 | 1.9 | 1.6 | 1.65 | 1.9 |
| 10 | 2.4 | 1.85 | 2.3 | 2.4 | 2.95 | 1.65 | 2.5 | 3.7 | 1.95 | 1.5 | 1.6 | 5.3 |
| 11 | 2.3 | 2.35 | 2.7 | 2.15 | 4.5 | 1.65 | 2.85 | 6.7 | 2.0 | 1.6 | 1.6 | 4.9 |
| 12 | 2.35 | 2.5 | 2.85 | 2.15 | 3.8 | 1.75 | 3.1 | 6.8 | 1.8 | 3.6 | 1.55 | 3.3 |
| 13 | 6.0 | 3.6 | 2.95 | 5.2 | 4.3 | 1.65 | 8.2 | 7.5 | 2.05 | 2.9 | 1.7 | 2.55 |
| 14 | 5.3 | 4.8 | 2.7 | 3.5 | 4.2 | 1.6 | 9.5 | 5.9 | 1.8 | 2.0 | 1.6 | 2.25 |
| 15 | 3.6 | 3.8 | 2.5 | 4.8 | 4.4 | 1.7 | 8.4 | 4.2 | 1.75 | 1.8 | 1.6 | 2.2 |
| 16 | 2.9 | 2.95 | 2.3 | 3.6 | 4.3 | 1.55 | 6.9 | 4.0 | 1.7 | 1.9 | 1.6 | 2.8 |
| 17 | 2.35 | 2.5 | 2.2 | 3.0 | 5.0 | 1.65 | 4.4 | 3.2 | 1.7 | 1.7 | 1.6 | 3.1 |
| 18 | 2.1 | 2.6 | 2.1 | 2.5 | 4.0 | 2.2 | 3.4 | 3.2 | 1.9 | 1.75 | 1.6 | 2.85 |
| 19 | 2.2 | 2.5 | 2.2 | 2.3 | 3.1 | 2.3 | 2.8 | 2.7 | 1.85 | 1.7 | 1.6 | 2.5 |
| 20 | 2.1 | 2.5 | 2.2 | 2.2 | 2.65 | 2.4 | 2.8 | 2.55 | 1.8 | 1.7 | 1.75 | 2.35 |
| 21 | 2.0 | 8.1 | 2.1 | 2.05 | 2.5 | 2.2 | 2.5 | 2.55 | 1.8 | 1.8 | 1.6 | 5.7 |
| 22 | 2.1 | 8.4 | 2.1 | 2.05 | 2.4 | 2.05 | 2.4 | 3.0 | 2.0 | 1.65 | 1.65 | 9.1 |
| 23 | 2.0 | 7.0 | 2.1 | 2.15 | 2.15 | 1.8 | 3.0 | 2.8 | 1.8 | 1.7 | 1.65 | 5.8 |
| 24 | 1.85 | 5.8 | 2.0 | 2.15 | 2.2 | 1.8 | 2.75 | 2.8 | 1.75 | 1.65 | 1.6 | 4.0 |
| 25 | 1.9 | 4.5 | 2.0 | 1.95 | 2.1 | 2.2 | 2.35 | 3.0 | 1.8 | 1.7 | 1.6 | 3.4 |
| 26 | 1.7 | 4.2 | 2.2 | 1.9 | 2.0 | 2.1 | 2.5 | 3.3 | 1.65 | 1.65 | 1.6 | 2.95 |
| 27 | 1.3 | 3.8 | 2.25 | 2.0 | 2.25 | 1.75 | 2.1 | 3.8 | 1.65 | 1.8 | 1.6 | 2.7 |
| 28 | 1.25 | 3.4 | 2.1 | 2.25 | 2.85 | 1.65 | 2.0 | 2.35 | 1.6 | 1.9 | 1.6 | 2.5 |
| 29 | 1.85 | ..... | 2.05 | 2.1 | 2.05 | 1.55 | 3.2 | 2.1 | 1.6 | 1.85 | 1.6 | 3.4 |
| 30 | 1.95 | ..... | 2.0 | 2.1 | 2.15 | 1.65 | 3.4 | 2.05 | 1.6 | 1.8 | 1.6 | 3.4 |
| 31 | 1.9 | ..... | 1.95 | ..... | 2.55 | ..... | 3.0 | 2.0 | ..... | 1.7 | ..... | 2.95 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1906 AND 1907.

| 1906. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.8 | 3.55 | 2.6 | 4.8 | 2.75 | 2.2 | 2.5 | 3.95 | 9.8 | 3.55 | 2.9 | 2.85 |
| 2 | 2.65 | 3.35 | 2.55 | 3.9 | 2.8 | 2.15 | 2.55 | 5.3 | 6.7 | 3.2 | 2.9 | 2.95 |
| 3 | 2.4 | 3.2 | 2.5 | 3.35 | 2.85 | 2.3 | 2.3 | 5.7 | 4.2 | 3.3 | 2.85 | 2.9 |
| 4 | 8.4 | 3.0 | 2.7 | 3.15 | 2.85 | 2.35 | 2.7 | 4.1 | 5.0 | 4.0 | 2.95 | 2.8 |
| 5 | 9.1 | 3.0 | 4.0 | 3.0 | 2.95 | 2.75 | 4.2 | 3.45 | 4.2 | 4.8 | 2.9 | 2.8 |
| 6 | 5.1 | 3.0 | 3.2 | 2.95 | 3.0 | 3.0 | 2.9 | 3.15 | 3.65 | 4.0 | 2.8 | 2.8 |
| 7 | 3.7 | 2.9 | 2.9 | 2.9 | 2.85 | 2.75 | 2.5 | 2.9 | 3.4 | 3.7 | 2.8 | 2.75 |
| 8 | 3.2 | 2.8 | 2.8 | 2.9 | 3.55 | 2.45 | 2.8 | 2.8 | 3.25 | 3.5 | 2.8 | 2.8 |
| 9 | 3.05 | 2.8 | 2.8 | 2.85 | 3.05 | 2.35 | 3.6 | 2.75 | 3.2 | 3.15 | 2.75 | 2.8 |
| 10 | 2.85 | 2.85 | 2.8 | 2.9 | 2.65 | 2.7 | 4.4 | 2.65 | 3.1 | 3.05 | 2.75 | 2.8 |
| 11 | 2.7 | 2.8 | 2.7 | 3.0 | 2.5 | 4.6 | 3.3 | 2.55 | 2.95 | 3.1 | 2.9 | 3.1 |
| 12 | 3.0 | 2.7 | 2.7 | 2.8 | 2.4 | 3.8 | 2.7 | 2.55 | 2.95 | 2.95 | 2.85 | 3.35 |
| 13 | 4.0 | 2.6 | 2.5 | 2.65 | 2.55 | 3.0 | 2.45 | 2.55 | 3.15 | 2.8 | 2.75 | 3.1 |
| 14 | 3.85 | 2.6 | 2.5 | 2.65 | 2.55 | 3.9 | 2.35 | 2.65 | 4.2 | 3.0 | 2.75 | 2.9 |
| 15 | 3.7 | 2.65 | 2.6 | 2.85 | 2.35 | 5.0 | 2.4 | 3.6 | 3.4 | 2.8 | 2.75 | 2.8 |
| 16 | 3.5 | 2.55 | 5.4 | 3.6 | 2.3 | 5.9 | 2.8 | 5.4 | 3.1 | 2.75 | 2.85 | 2.85 |
| 17 | 3.2 | 2.5 | 4.6 | 3.5 | 2.35 | 5.8 | 4.6 | 8.2 | 2.8 | 2.75 | 2.85 | 2.85 |
| 18 | 3.0 | 2.6 | 3.55 | 3.05 | 2.25 | 4.5 | 3.4 | 5.6 | 2.8 | 2.8 | 2.85 | 3.1 |
| 19 | 2.85 | 2.65 | 3.15 | 2.85 | 2.25 | 4.0 | 3.2 | 4.8 | 2.95 | 3.7 | 3.0 | 3.4 |
| 20 | 2.75 | 2.5 | 5.5 | 2.7 | 2.35 | 3.4 | 3.05 | 3.8 | 3.4 | 9.4 | 8.5 | 3.2 |
| 21 | 2.75 | 2.45 | 5.0 | 2.65 | 2.4 | 3.4 | 3.9 | 4.0 | 3.2 | 7.1 | 7.2 | 3.5 |
| 22 | 2.75 | 2.9 | 3.8 | 2.75 | 2.2 | 2.95 | 6.9 | 4.0 | 3.0 | 4.8 | 4.1 | 3.4 |
| 23 | 4.8 | 3.0 | 3.3 | 2.75 | 2.2 | 3.3 | 6.4 | 3.85 | 3.5 | 4.1 | 3.65 | 3.2 |
| 24 | 9.0 | 2.9 | 3.05 | 2.35 | 2.2 | 2.7 | 5.0 | 3.55 | 3.5 | 3.7 | 3.35 | 3.0 |
| 25 | 5.5 | 2.7 | 3.1 | 2.3 | 2.2 | 3.1 | 3.85 | 3.25 | 3.5 | 3.5 | 3.25 | 2.8 |
| 26 | 4.3 | 2.7 | 3.1 | 2.25 | 2.15 | 3.45 | 5.7 | 3.15 | 3.0 | 3.35 | 3.2 | 2.55 |
| 27 | 4.7 | 2.5 | 3.0 | 2.25 | 2.35 | 3.8 | 4.2 | 3.25 | 2.8 | 3.25 | 3.05 | 2.5 |
| 28 | 7.2 | 2.55 | 2.95 | 2.5 | 2.8 | 3.0 | 5.9 | 3.65 | 2.85 | 3.15 | 3.05 | 2.9 |
| 29 | 6.4 | ------- | 3.05 | 2.6 | 2.7 | 2.7 | 3.55 | 4.8 | 3.15 | 3.15 | 3.0 | 2.95 |
| 30 | 4.8 | ------- | 3.4 | 2.65 | 2.4 | 2.7 | 3.35 | 10.9 | 3.25 | 3.0 | 2.9 | 3.0 |
| 31 | 4.0 | ------- | 4.4 | ------- | 2.25 | ------- | 4.2 | 11.9 | ------- | 3.0 | ------ | 3.15 |
| 1907. | | | | | | | | | | | | |
| 1 | 7.20 | 2.60 | 3.20 | 2.80 | 3.00 | 2.50 | 4.00 | 2.45 | 2.00 | 2.70 | 2.20 | 2.60 |
| 2 | 5.50 | 2.60 | 3.35 | 3.10 | 2.95 | 6.00 | 3.10 | 2.45 | 2.00 | 2.50 | 2.25 | 2.50 |
| 3 | 4.10 | 2.75 | 3.90 | 2.80 | 2.90 | 6.40 | 3.30 | 2.40 | 2.00 | 2.40 | 2.40 | 2.50 |
| 4 | 3.60 | 2.75 | 3.65 | 2.65 | 3.05 | 4.30 | 3.20 | 2.40 | 2.10 | 2.40 | 2.70 | 2.45 |
| 5 | 3.40 | 2.60 | 3.15 | 2.60 | 3.10 | 3.45 | 2.90 | 2.55 | 2.15 | 2.30 | 2.40 | 2.40 |
| 6 | 3.25 | 2.80 | 3.00 | 2.60 | 2.90 | 3.00 | 2.90 | 2.30 | 2.90 | 2.30 | 2.30 | 2.45 |
| 7 | 3.10 | 2.80 | 2.90 | 5.20 | 2.70 | 2.85 | 2.85 | 2.40 | 2.40 | 2.40 | 2.20 | 2.35 |
| 8 | 3.00 | 2.60 | 2.80 | 4.40 | 2.70 | 2.65 | 2.80 | 2.60 | 2.05 | 2.30 | 2.25 | 2.45 |
| 9 | 3.00 | 2.60 | 2.95 | 3.65 | 2.80 | 2.75 | 2.60 | 2.55 | 2.10 | 2.40 | 2.25 | 2.50 |
| 10 | 2.95 | 2.75 | 3.90 | 3.25 | 2.90 | 2.90 | 2.55 | 2.70 | 2.10 | 2.30 | 2.35 | 3.10 |
| 11 | 2.90 | 2.75 | 3.60 | 3.10 | 2.80 | 4.20 | 2.50 | 3.25 | 3.20 | 2.20 | 2.50 | 4.40 |
| 12 | 2.80 | 2.75 | 3.45 | 2.90 | 2.70 | 6.90 | 2.55 | 2.60 | 3.20 | 2.20 | 2.45 | 3.65 |
| 13 | 2.90 | 2.60 | 3.20 | 2.85 | 2.65 | 4.30 | 2.80 | 2.40 | 2.70 | 2.15 | 2.40 | 3.10 |
| 14 | 2.90 | 2.60 | 3.05 | 2.80 | 2.50 | 3.60 | 3.00 | 2.60 | 2.25 | 2.25 | 2.25 | 4.60 |
| 15 | 2.80 | 2.60 | 3.40 | 2.80 | 2.45 | 4.20 | 3.00 | 2.60 | 2.10 | 2.20 | 2.40 | 7.70 |
| 16 | 2.75 | 2.55 | 3.45 | 2.65 | 2.50 | 3.60 | 2.75 | 2.40 | 2.20 | 2.20 | 2.30 | 5.70 |
| 17 | 2.70 | 2.60 | 3.30 | 2.60 | 2.55 | 3.10 | 2.70 | 2.25 | 2.10 | 2.20 | 2.30 | 4.20 |
| 18 | 2.70 | 2.65 | 3.00 | 2.65 | 2.55 | 2.75 | 3.20 | 2.90 | 2.05 | 2.20 | 2.30 | 3.50 |
| 19 | 2.80 | 2.60 | 2.90 | 2.60 | 2.55 | 2.65 | 3.05 | 3.15 | 2.10 | 2.10 | 2.30 | 3.15 |
| 20 | 2.80 | 2.60 | 2.85 | 2.70 | 2.50 | 2.60 | 3.00 | 2.65 | 2.05 | 2.10 | 2.50 | 3.00 |
| 21 | 2.75 | 2.80 | 2.80 | 2.75 | 2.35 | 2.70 | 2.80 | 2.40 | 2.00 | 2.15 | 2.45 | 2.80 |
| 22 | 2.70 | 2.65 | 2.80 | 2.70 | 2.35 | 2.95 | 2.60 | 2.30 | 1.95 | 2.10 | 2.70 | 2.80 |
| 23 | 2.70 | 2.55 | 2.70 | 3.65 | 2.35 | 2.70 | 2.40 | 2.40 | 2.40 | 2.10 | 4.30 | 6.10 |
| 24 | 2.60 | 2.60 | 2.70 | 4.60 | 2.35 | 3.90 | 2.40 | 2.30 | 3.00 | 2.20 | 7.00 | 9.80 |
| 25 | 2.60 | 2.75 | 2.70 | 4.10 | 2.35 | 3.35 | 2.40 | 2.35 | 4.50 | 2.10 | 6.70 | 6.30 |
| 26 | 2.60 | 3.40 | 2.60 | 3.35 | 2.50 | 3.05 | 2.30 | 2.30 | 3.10 | 2.10 | 4.40 | 4.20 |
| 27 | 2.75 | 3.60 | 2.60 | 3.10 | 2.55 | 2.70 | 2.40 | 2.20 | 2.70 | 2.00 | 3.45 | 3.60 |
| 28 | 2.70 | 3.25 | 2.65 | 4.20 | 2.55 | 3.15 | 2.40 | 2.20 | 2.60 | 2.25 | 2.95 | 3.30 |
| 29 | 2.60 | ------- | 2.60 | 3.70 | 2.40 | 2.95 | 2.40 | 2.10 | 2.85 | 2.30 | 2.75 | 3.10 |
| 30 | 2.55 | ------- | 2.50 | 3.20 | 2.30 | 5.00 | 2.40 | 2.10 | 3.00 | 2.20 | 2.80 | 3.50 |
| 31 | 2.60 | ------- | 2.60 | ------- | 2.30 | ------- | 2.60 | 2.10 | ------- | 2.20 | ------ | 5.80 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER NEAR SALISBURY, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.5 | 2.9 | 3.3 | 3.2 | 4.3 | 2.65 | 2.4 | 2.7 | 2.9 | 2.5 |
| 2 | 3.6 | 3.3 | 3.4 | 4.0 | 3.55 | 2.6 | 2.5 | 2.5 | 2.85 | 2.4 |
| 3 | 3.3 | 3.0 | 3.35 | 4.6 | 3.15 | 2.5 | 4.0 | 2.5 | 2.7 | 2.3 |
| 4 | 3.1 | 2.7 | 3.3 | 3.75 | 3.0 | 3.3 | 4.6 | 2.4 | 2.65 | 2.35 |
| 5 | 3.9 | 2.9 | 3.25 | 3.35 | 3.0 | 6.2 | 5.6 | 2.35 | 2.8 | 2.4 |
| 6 | 3.8 | 3.0 | 3.8 | 3.2 | 2.9 | 3.8 | 5.4 | 3.0 | 5.7 | 2.3 |
| 7 | 5.1 | 3.35 | 3.9 | 3.2 | 3.2 | 3.15 | 4.5 | 3.4 | 5.1 | 2.35 |
| 8 | 8.3 | 3.15 | 3.4 | 3.15 | 4.1 | 2.95 | 3.8 | 3.05 | 5.1 | 2.35 |
| 9 | 6.2 | 3.05 | 3.3 | 3.1 | 3.8 | 2.65 | 3.9 | 2.9 | 4.5 | 2.4 |
| 10 | 4.3 | 3.0 | 3.3 | 3.0 | 3.3 | 2.7 | 3.9 | 2.9 | 3.35 | 4.6 |
| 11 | 3.5 | 3.05 | 3.25 | 3.0 | 3.1 | 2.85 | 3.45 | 2.6 | 3.05 | 6.9 |
| 12 | 7.4 | 3.95 | 3.4 | 2.95 | 2.95 | 2.85 | 3.0 | 2.7 | 2.65 | 4.2 |
| 13 | 9.1 | 6.3 | 3.6 | 2.9 | 3.0 | 3.4 | 2.8 | 2.45 | 2.6 | 3.2 |
| 14 | 5.7 | 8.2 | 3.4 | 2.9 | 2.8 | 2.9 | 2.75 | 2.5 | 2.6 | 2.8 |
| 15 | 4.3 | 8.7 | 3.25 | 2.9 | 2.8 | 2.9 | 2.9 | 2.2 | 2.5 | 2.8 |
| 16 | 3.6 | 11.3 | 3.15 | 3.75 | 2.75 | 3.85 | 2.65 | 2.25 | 2.5 | 2.7 |
| 17 | 3.4 | 7.5 | 3.1 | 4.1 | 2.65 | 3.3 | 2.55 | 2.4 | 2.45 | 2.5 |
| 18 | 3.2 | 4.8 | 3.1 | 3.6 | 2.8 | 2.85 | 2.5 | 2.25 | 2.4 | 2.5 |
| 19 | 3.1 | 4.5 | 3.15 | 3.35 | 3.3 | 2.75 | 2.45 | 2.35 | 2.35 | 2.5 |
| 20 | 3.0 | 5.0 | 3.1 | 3.2 | 3.4 | 2.75 | 2.65 | 2.8 | 2.4 | 2.4 |
| 21 | 3.0 | 4.6 | 3.4 | 3.1 | 3.6 | 3.0 | 2.5 | 2.8 | 2.5 | 2.5 |
| 22 | 2.95 | 4.0 | 3.75 | 3.0 | 3.2 | 3.45 | 3.3 | 2.75 | 2.4 | 2.5 |
| 23 | 2.9 | 3.65 | 3.8 | 2.9 | 3.35 | 2.9 | 3.7 | 2.95 | 2.4 | 2.7 |
| 24 | 2.9 | 3.5 | 7.1 | 2.9 | 3.15 | 3.0 | 3.5 | 4.8 | 2.4 | 4.2 |
| 25 | 2.7 | 3.35 | 6.5 | 3.05 | 3.0 | 2.8 | 3.0 | 6.8 | 2.4 | 7.1 |
| 26 | 2.7 | 3.45 | 4.7 | 3.1 | 2.8 | 2.7 | 2.9 | 13.4 | 2.3 | 4.7 |
| 27 | 2.95 | 3.9 | 3.8 | 3.5 | 2.7 | 2.55 | 2.55 | 14.1 | 2.3 | 3.7 |
| 28 | 3.0 | 3.75 | 3.55 | 3.2 | 2.7 | 2.7 | 2.65 | 7.3 | 2.7 | 3.4 |
| 29 | 2.9 | 3.55 | 3.3 | 3.2 | 2.7 | 2.5 | 3.3 | 4.2 | 3.05 | 4.6 |
| 30 | 2.8 | ..... | 3.25 | 3.0 | 2.8 | 2.4 | 2.75 | 3.5 | 2.9 | 6.2 |
| 31 | 2.8 | ..... | 3.15 | ..... | 2.8 | ..... | 3.2 | 3.15 | ..... | 5.2 |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1896.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 500 | 2.00 | 3,000 | 3.00 | 6,400 | 4.00 | 9,800 |
| 1.10 | 650 | 2.10 | 3,340 | 3.10 | 6,740 | 4.10 | 10,160 |
| 1.20 | 850 | 2.20 | 3,680 | 3.20 | 7,080 | 4.20 | 10,540 |
| 1.30 | 1,050 | 2.30 | 4,020 | 3.30 | 7,420 | 4.30 | 10,940 |
| 1.40 | 1,275 | 2.40 | 4,360 | 3.40 | 7,760 | 4.40 | 11,390 |
| 1.50 | 1,500 | 2.50 | 4,700 | 3.50 | 8,100 | 4.50 | 11,840 |
| 1.60 | 1,740 | 2.60 | 5,040 | 3.60 | 8,440 | 4.60 | 12,290 |
| 1.70 | 1,980 | 2.70 | 5,380 | 3.70 | 8,780 | 4.70 | 12,740 |
| 1.80 | 2,320 | 2.80 | 5,720 | 3.80 | 9,120 | 4.80 | 13,200 |
| 1.90 | 2,660 | 2.90 | 6,060 | 3.90 | 9,460 | 4.90 | 13,700 |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1897.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 560 | 3.2 | 7,116 | 5.4 | 14,860 | 7.6 | 22,604 |
| 1.2 | 900 | 3.4 | 7,820 | 5.6 | 15,564 | 7.8 | 23,308 |
| 1.4 | 1,310 | 3.6 | 8,524 | 5.8 | 16,268 | 8.0 | 24,012 |
| 1.6 | 1,760 | 3.8 | 9,228 | 6.0 | 16,972 | 8.5 | 25,772 |
| 1.8 | 2,300 | 4.0 | 9,932 | 6.2 | 17,676 | 9.0 | 27,532 |
| 2.0 | 2,920 | 4.2 | 10,636 | 6.4 | 18,380 | 9.5 | 29,292 |
| 2.2 | 3,596 | 4.4 | 11,340 | 6.6 | 19,084 | 10.0 | 31,052 |
| 2.4 | 4,300 | 4.6 | 12,044 | 6.8 | 19,788 | 10.5 | 32,812 |
| 2.6 | 5,004 | 4.8 | 12,748 | 7.0 | 20,492 | 11.0 | 34,572 |
| 2.8 | 5,708 | 5.0 | 13,452 | 7.2 | 21,196 | 11.5 | 36,332 |
| 3.0 | 6,412 | 5.2 | 14,156 | 7.4 | 21,900 | | |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.20 | 1,000 | 3.20 | 6,350 | 5.50 | 12,410 | 10.50 | 42,115 |
| 1.40 | 1,250 | 3.40 | 7,150 | 6.00 | 13,585 | 11.00 | 46,520 |
| 1.60 | 1,550 | 3.60 | 8,000 | 6.50 | 14,780 | 11.50 | 50,925 |
| 1.80 | 1,900 | 3.80 | 8,850 | 7.00 | 15,980 | 12.00 | 55,330 |
| 2.00 | 2,325 | 4.00 | 9,290 | 7.50 | 18,830 | 12.50 | 59,735 |
| 2.20 | 2,850 | 4.20 | 9,675 | 8.00 | 21,700 | 13.00 | 64,140 |
| 2.40 | 3,450 | 4.40 | 10,065 | 8.50 | 25,300 | 13.50 | 68,545 |
| 2.60 | 4,100 | 4.60 | 10,450 | 9.00 | 28,900 | 14.00 | 72,950 |
| 2.80 | 4,800 | 4.80 | 10,840 | 9.50 | 33,305 | 14.50 | 77,355 |
| 3.00 | 5,550 | 5.00 | 11,235 | 10.00 | 37,710 | 15.00 | 81,760 |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1899.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.6 | 1,600 | 3.8 | 8,900 | 7.5 | 25,650 | 13.0 | 69,000 |
| 1.8 | 2,000 | 4.0 | 9,700 | 8.0 | 29,100 | 13.5 | 73,000 |
| 2.0 | 2,500 | 4.2 | 10,500 | 8.5 | 33,000 | 14.0 | 77,000 |
| 2.2 | 3,100 | 4.4 | 11,300 | 9.0 | 37,000 | 14.5 | 81,000 |
| 2.4 | 3,700 | 4.6 | 12,100 | 9.5 | 41,000 | 15.0 | 85,000 |
| 2.6 | 4,300 | 4.8 | 12,900 | 10.0 | 45,000 | 16.0 | 93,000 |
| 2.8 | 5,000 | 5.0 | 13,700 | 10.5 | 49,000 | 17.0 | 101,000 |
| 3.0 | 5,700 | 5.5 | 15,700 | 11.0 | 53,000 | 18.0 | 109,000 |
| 3.2 | 6,500 | 6.0 | 17,900 | 11.5 | 57,000 | 19.0 | 117,000 |
| 3.4 | 7,300 | 6.5 | 20,200 | 12.0 | 61,000 | | |
| 3.6 | 8,100 | 7.0 | 22,700 | 12.5 | 65,000 | | |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1900.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.2 | 1,040 | 3.4 | 6,285 | 6.5 | 21,000 | 12.0 | 58,750 |
| 1.4 | 1,300 | 3.6 | 6,990 | 7.0 | 24,060 | 12.5 | 62,625 |
| 1.6 | 1,560 | 3.8 | 7,720 | 7.5 | 27,130 | 13.0 | 66,525 |
| 1.8 | 1,870 | 4.0 | 8,450 | 8.0 | 30,425 | 13.5 | 70,425 |
| 2.0 | 2,250 | 4.2 | 9,270 | 8.5 | 33,750 | 14.0 | 74,325 |
| 2.2 | 2,750 | 4.4 | 10,100 | 9.0 | 37,125 | 14.5 | 78,375 |
| 2.4 | 3,250 | 4.6 | 10,960 | 9.5 | 40,500 | 15.0 | 82,500 |
| 2.6 | 3,790 | 4.8 | 11,880 | 10.0 | 43,950 | 16.0 | 91,000 |
| 2.8 | 4,370 | 5.0 | 12,800 | 10.5 | 47,560 | 17.0 | 99,600 |
| 3.0 | 4,950 | 5.5 | 15,250 | 11.0 | 51,250 | 18.0 | 108,200 |
| 3.2 | 5,610 | 6.0 | 18,000 | 11.5 | 55,000 | 19.0 | 116,800 |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.2 | 2,120 | 4.8 | 11,800 | 7.4 | 22,900 | 13.0 | 55,700 |
| 2.4 | 2,750 | 5.0 | 12,600 | 7.6 | 23,810 | 13.5 | 59,700 |
| 2.6 | 3,460 | 5.2 | 13,420 | 7.8 | 24,730 | 14.0 | 63,700 |
| 2.8 | 4,180 | 5.4 | 14,240 | 8.0 | 25,650 | 14.5 | 67,900 |
| 3.0 | 4,900 | 5.6 | 15,070 | 8.5 | 28,000 | 15.0 | 72,400 |
| 3.2 | 5,640 | 5.8 | 15,910 | 9.0 | 30,400 | 15.5 | 77,150 |
| 3.4 | 6,380 | 6.0 | 16,750 | 9.5 | 33,000 | 16.0 | 82,000 |
| 3.6 | 7,130 | 6.2 | 17,610 | 10.0 | 35,750 | 16.5 | 87,400 |
| 3.8 | 7,890 | 6.4 | 18,470 | 10.5 | 38,650 | 17.0 | 93,000 |
| 4.0 | 8,650 | 6.6 | 19,340 | 11.0 | 41,700 | 17.5 | 99,000 |
| 4.2 | 9,430 | 6.8 | 20,220 | 11.5 | 44,900 | 18.0 | 105,000 |
| 4.4 | 10,210 | 7.0 | 21,100 | 12.0 | 48,300 | 19.0 | 117,400 |
| 4.6 | 11,000 | 7.2 | 22,000 | 12.5 | 51,900 | | |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1902.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.7 | 1,350 | 4.4 | 10,240 | 7.2 | 22,000 | 13.0 | 55,700 |
| 1.8 | 1,580 | 4.6 | 11,000 | 7.4 | 22,900 | 13.5 | 59,700 |
| 2.0 | 2,120 | 4.8 | 11,800 | 7.6 | 23,810 | 14.0 | 63,700 |
| 2.2 | 2,720 | 5.0 | 12,600 | 7.8 | 24,730 | 14.5 | 67,900 |
| 2.4 | 3,320 | 5.2 | 13,420 | 8.0 | 25,650 | 15.0 | 72,400 |
| 2.6 | 3,940 | 5.4 | 14,240 | 8.5 | 28,000 | 15.5 | 77,150 |
| 2.8 | 4,580 | 5.6 | 15,070 | 9.0 | 30,400 | 16.0 | 82,000 |
| 3.0 | 5,220 | 5.8 | 15,910 | 9.5 | 33,000 | 16.5 | 87,400 |
| 3.2 | 5,900 | 6.0 | 16,750 | 10.0 | 35,750 | 17.0 | 93,000 |
| 3.4 | 6,580 | 6.2 | 17,610 | 10.5 | 38,650 | 17.5 | 99,000 |
| 3.6 | 7,280 | 6.4 | 18,470 | 11.0 | 41,700 | 18.0 | 105,000 |
| 3.8 | 8,000 | 6.6 | 19,340 | 11.5 | 44,900 | 19.0 | 117,400 |
| 4.0 | 8,720 | 6.8 | 20,220 | 12.0 | 48,300 | | |
| 4.2 | 9,480 | 7.0 | 21,100 | 12.5 | 51,900 | | |

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1903.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.6 | 1,500 | 2.9 | 5,350 | 4.2 | 9,670 | 6.0 | 16,750 |
| 1.7 | 1,740 | 3.0 | 5,670 | 4.3 | 10,020 | 6.2 | 17,610 |
| 1.8 | 1,990 | 3.1 | 5,990 | 4.4 | 10,370 | 6.4 | 18,470 |
| 1.9 | 2,260 | 3.2 | 6,310 | 4.5 | 10,720 | 6.6 | 19,340 |
| 2.0 | 2,540 | 3.3 | 6,640 | 4.6 | 11,080 | 6.8 | 20,220 |
| 2.1 | 2,830 | 3.4 | 6,970 | 4.7 | 11,450 | 7.0 | 21,100 |
| 2.2 | 3,130 | 3.5 | 7,300 | 4.8 | 11,830 | 7.5 | 23,350 |
| 2.3 | 3,440 | 3.6 | 7,630 | 4.9 | 12,210 | 8.0 | 25,650 |
| 2.4 | 3,750 | 3.7 | 7,960 | 5.0 | 12,600 | 9.0 | 30,400 |
| 2.5 | 4,070 | 3.8 | 8,300 | 5.2 | 13,410 | 10.0 | 35,750 |
| 2.6 | 4,390 | 3.9 | 8,640 | 5.4 | 14,230 | 11.0 | 41,700 |
| 2.7 | 4,710 | 4.0 | 8,980 | 5.6 | 15,070 | | |
| 2.8 | 5,030 | 4.1 | 9,320 | 5.8 | 15,910 | | |

Table well determined to 6 feet gage height. Above 5.6 feet table same as 1901 and 1902.

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1904.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.10 | 1,050 | 2.20 | 3,015 | 3.30 | 6,250 | 4.80 | 11,780 |
| 1.20 | 1,170 | 2.30 | 3,270 | 3.40 | 6,585 | 5.00 | 12,600 |
| 1.30 | 1,300 | 2.40 | 3,540 | 3.50 | 6,930 | 5.20 | 13,440 |
| 1.40 | 1,445 | 2.50 | 3,820 | 3.60 | 7,280 | 5.40 | 14,280 |
| 1.50 | 1,600 | 2.60 | 4,110 | 3.70 | 7,630 | 5.60 | 15,120 |
| 1.60 | 1,770 | 2.70 | 4,400 | 3.80 | 7,985 | 5.80 | 15,960 |
| 1.70 | 1,950 | 2.80 | 4,695 | 3.90 | 8,345 | 6.00 | 16,800 |
| 1.80 | 2,140 | 2.90 | 4,995 | 4.00 | 8,710 | 6.50 | 18,900 |
| 1.90 | 2,340 | 3.00 | 5,300 | 4.20 | 9,455 | | |
| 2.00 | 2,550 | 3.10 | 5,610 | 4.40 | 10,220 | | |
| 2.10 | 2,775 | 3.20 | 5,925 | 4.60 | 10,990 | | |

The above table is applicable only for open-channel conditions. It is based upon 9 discharge measurements made during 1904 and 10 made during 1903. It is fairly well defined between gage heights 1.40 feet and 2.60 feet. The table has been extended below gage height 1.40 feet. Above gage height 5 feet the rating curve is a tangent, the difference being 420 per tenth.

STATION RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 1,050 | 2.70 | 4,400 | 4.30 | 9,510 | 6.60 | 18,650 |
| 1.20 | 1,170 | 2.80 | 4,675 | 4.40 | 9,850 | 6.80 | 19,570 |
| 1.30 | 1,300 | 2.90 | 4,995 | 4.50 | 10,200 | 7.00 | 20,500 |
| 1.40 | 1,445 | 3.00 | 5,300 | 4.60 | 10,550 | 7.20 | 21,440 |
| 1.50 | 1,600 | 3.10 | 5,610 | 4.70 | 10,910 | 7.40 | 22,400 |
| 1.60 | 1,770 | 3.20 | 5,920 | 4.80 | 11,270 | 7.60 | 23,380 |
| 1.70 | 1,950 | 3.30 | 6,235 | 4.90 | 11,630 | 7.80 | 24,380 |
| 1.80 | 2,140 | 3.40 | 6,550 | 5.00 | 12,000 | 8.00 | 25,400 |
| 1.90 | 2,340 | 3.50 | 6,870 | 5.20 | 12,750 | 8.20 | 26,450 |
| 2.00 | 2,550 | 3.60 | 7,190 | 5.40 | 13,520 | 8.40 | 27,520 |
| 2.10 | 2,775 | 3.70 | 7,515 | 5.60 | 14,320 | 8.60 | 28,620 |
| 2.20 | 3,015 | 3.80 | 7,840 | 5.80 | 15,150 | 8.80 | 29,740 |
| 2.30 | 3,270 | 3.90 | 8,170 | 6.00 | 16,000 | 9.00 | 30,880 |
| 2.40 | 3,540 | 4.00 | 8,500 | 6.20 | 16,870 | 9.20 | 32,040 |
| 2.50 | 3,820 | 4.10 | 8,830 | 6.40 | 17,750 | 9.40 | 33,220 |
| 2.60 | 4,110 | 4.20 | 9,170 | | | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on 26 discharge measurements made during 1901, 1904 and 1905. It is well defined between gage heights 1.4 feet and 6.2 feet. The table has been extended beyond these limits, being based on two measurements at 10.5 feet. Below 3 feet the table is the same as for 1904.

RATING TABLE FOR YADKIN RIVER NEAR SALISBURY, N. C., FOR 1906 AND 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.00 | 1,990 | 3.30 | 5,860 | 4.60 | 10,830 | 6.80 | 20,950 |
| 2.10 | 2,220 | 3.40 | 6,220 | 4.70 | 11,240 | 7.00 | 22,060 |
| 2.20 | 2,460 | 3.50 | 6,580 | 4.80 | 11,650 | 7.20 | 23,210 |
| 2.30 | 2,720 | 3.60 | 6,950 | 4.90 | 12,070 | 7.40 | 24,400 |
| 2.40 | 2,990 | 3.70 | 7,320 | 5.00 | 12,490 | 7.60 | 25,600 |
| 2.50 | 3,270 | 3.80 | 7,700 | 5.20 | 13,340 | 7.80 | 26,800 |
| 2.60 | 3,560 | 3.90 | 8,080 | 5.40 | 14,210 | 8.00 | 28,000 |
| 2.70 | 3,860 | 4.00 | 8,460 | 5.60 | 15,090 | 9.00 | 34,000 |
| 2.80 | 4,170 | 4.10 | 8,850 | 5.80 | 15,990 | 10.00 | 40,000 |
| 2.90 | 4,490 | 4.20 | 9,240 | 6.00 | 16,910 | 11.00 | 46,000 |
| 3.00 | 4,820 | 4.30 | 9,630 | 6.20 | 17,860 | 12.00 | 52,000 |
| 3.10 | 5,160 | 4.40 | 10,030 | 6.40 | 18,850 | | |
| 3.20 | 5,510 | 4.50 | 10,430 | 6.60 | 19,880 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1901–1906. It is well defined between gage heights 2 feet and 11 feet. Above gage height 7.30 feet the rating curve is a tangent, the difference being 60.0 per tenth. Measurements made at the railroad bridge have been referred to the toll-bridge gage by means of a series of simultaneous readings. This table refers to the toll-bridge gage.

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER NEAR SALISBURY, N. C.

[Drainage area, 3,399 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1895. | | | | | | |
| October | 1,500 | 1,400 | 1,426 | 87,681 | 0.48 | 0.42 |
| November | 4,020 | 1,310 | 2,004 | 119,246 | 0.65 | 0.59 |
| December | 10,160 | 1,640 | 2,683 | 164,971 | 0.91 | 0.79 |
| 1896. | | | | | | |
| January | 10,940 | 1,640 | 4,485 | 275,774 | 1.52 | 1.32 |
| February | 24,200 | 2,320 | 7,817 | 449,638 | 2.48 | 2.30 |
| March | 5,380 | 2,320 | 3,472 | 213,485 | 1.18 | 1.02 |
| April | 29,200 | 2,660 | 5,242 | 311,920 | 1.72 | 1.54 |
| May | 6,060 | 1,310 | 2,507 | 154,149 | 0.85 | 0.74 |
| June | 9,460 | 1,310 | 3,159 | 187,974 | 1.03 | 0.93 |
| July | 64,260 | 1,640 | 11,584 | 712,277 | 3.94 | 3.41 |
| August | 6,060 | 1,000 | 2,411 | 148,248 | 0.82 | 0.71 |
| September | 32,200 | 1,000 | 3,087 | 183,689 | 1.01 | 0.91 |
| October | 31,200 | 1,310 | 3,122 | 191,965 | 1.06 | 0.92 |
| November | 23,200 | 1,980 | 5,206 | 309,779 | 1.65 | 1.48 |
| December | 22,700 | 3,000 | 6,037 | 371,202 | 2.05 | 1.78 |
| The year | 64,200 | 1,000 | 4,844 | 3,510,100 | 19.31 | 1.42 |
| 1897. | | | | | | |
| January | 12,044 | 2,600 | 4,039 | 248,350 | 1.37 | 1.19 |
| February | 23,924 | 4,652 | 11,597 | 644,065 | 3.45 | 3.41 |
| March | 25,068 | 4,652 | 10,522 | 646,970 | 3.58 | 3.10 |
| April | 31,756 | 3,948 | 7,761 | 461,810 | 2.54 | 2.28 |
| May | 14,156 | 3,250 | 5,776 | 355,150 | 1.96 | 1.70 |
| June | 19,788 | 2,300 | 5,652 | 336,320 | 1.85 | 1.66 |
| July | 11,692 | 2,600 | 4,821 | 296,430 | 1.64 | 1.42 |
| August | 5,708 | 1,760 | 2,943 | 180,960 | 1.00 | 0.87 |
| September | 3,250 | 900 | 1,785 | 106,215 | 0.59 | 0.53 |
| October | 25,772 | 900 | 3,557 | 218,600 | 1.21 | 1.05 |
| November | 7,116 | 900 | 2,708 | 161,140 | 0.89 | 0.80 |
| December | 5,708 | 2,300 | 3,086 | 189,750 | 1.05 | 0.91 |
| The year | 34,924 | 900 | 5,354 | 3,845,760 | 21.13 | 1.58 |
| 1898. | | | | | | |
| January | 9,290 | 2,100 | 3,460 | 212,747 | 1.18 | 1.02 |
| February | 2,850 | 1,400 | 1,957 | 108,686 | 0.60 | 0.58 |
| March | 13,820 | 1,725 | 3,119 | 191,780 | 1.06 | 0.92 |
| April | 10,645 | 1,550 | 2,977 | 177,144 | 0.98 | 0.88 |
| May | 12,058 | 1,550 | 2,928 | 180,036 | 0.99 | 0.86 |
| June | 2,567 | 1,400 | 1,855 | 110,380 | 0.61 | 0.55 |
| July | 10,450 | 1,100 | 3,178 | 195,408 | 1.08 | 0.94 |
| August | 12,880 | 1,725 | 5,185 | 318,813 | 1.76 | 1.53 |
| September | 79,998 | 1,400 | 8,297 | 493,706 | 2.72 | 2.44 |
| October | 16,550 | 1,725 | 4,411 | 271,222 | 1.50 | 1.30 |
| November | 4,800 | 1,725 | 2,211 | 131,564 | 0.72 | 0.65 |
| December | 12,645 | 1,550 | 3,257 | 200,265 | 1.10 | 0.96 |
| The year | 79,998 | 1,100 | 3,569 | 2,591,751 | 14.30 | 1.05 |

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER NEAR SALISBURY, N. C.—*Continued.*

[Drainage area, 3,399 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1899. | | | | | | |
| January | 46,600 | 2,500 | 8,548 | 525,596 | 2.51 | 2.90 |
| February | 45,800 | 3,100 | 13,443 | 746,586 | 3.95 | 4.11 |
| March | 107,400 | 6,900 | 23,899 | 1,469,492 | 7.03 | 8.10 |
| April | 27,700 | 6,500 | 9,825 | 584,628 | 2.89 | 3.22 |
| May | 11,300 | 4,000 | 6,211 | 381,899 | 1.83 | 2.11 |
| June | 12,900 | 3,100 | 4,823 | 286,988 | 1.42 | 1.58 |
| July | 10,900 | 2,250 | 3,703 | 227,689 | 1.09 | 1.26 |
| August | 5,000 | 1,450 | 2,356 | 144,865 | 0.69 | 0.79 |
| September | 10,500 | 1,450 | 2,495 | 148,463 | 0.73 | 0.81 |
| October | 5,700 | 1,600 | 2,226 | 136,871 | 0.65 | 0.75 |
| November | 3,700 | 1,800 | 2,120 | 126,149 | 0.62 | 0.69 |
| December | 8,900 | 1,800 | 2,716 | 167,000 | 0.80 | 0.92 |
| The year | 107,400 | 1,450 | 6,864 | 4,946,226 | 2.02 | 27.24 |
| 1900. | | | | | | |
| January | 15,250 | 1,430 | 4,257 | 261,753 | 1.25 | 1.44 |
| February | 37,800 | 1,430 | 7,029 | 390,371 | 2.07 | 2.15 |
| March | 40,500 | 4,080 | 9,182 | 564,579 | 2.70 | 3.12 |
| April | 48,298 | 2,250 | 8,679 | 516,436 | 2.55 | 2.84 |
| May | 8,450 | 2,500 | 3,331 | 204,815 | 0.98 | 1.13 |
| June | 24,060 | 3,000 | 6,190 | 368,331 | 1.82 | 2.03 |
| July | 5,945 | 2,060 | 3,332 | 204,877 | 0.98 | 1.13 |
| August | 5,112 | 1,870 | 2,415 | 148,493 | 0.71 | 0.82 |
| September | 12,570 | 1,625 | 2,769 | 164,767 | 0.81 | 0.90 |
| October | 22,830 | 2,060 | 3,750 | 230,578 | 1.10 | 1.27 |
| November | 29,435 | 2,625 | 4,417 | 262,830 | 1.30 | 1.45 |
| December | 21,915 | 3,125 | 5,138 | 315,923 | 1.51 | 1.74 |
| The year | 48,298 | 1,430 | 5,041 | 3,633,753 | 1.48 | 20.02 |

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1901. | | | | | |
| January | 31,180 | 2,925 | 5,284 | 1.55 | 1.79 |
| February | 6,195 | 2,420 | 3,507 | 1.03 | 1.07 |
| March | 37,780 | 2,585 | 5,922 | 1.74 | 2.01 |
| April | 81,030 | 4,180 | 13,787 | 4.06 | 4.53 |
| May | 70,870 | 4,000 | 11,152 | 3.28 | 3.78 |
| June | 32,220 | 4,540 | 10,950 | 3.22 | 3.59 |
| July | 29,200 | 3,820 | 8,455 | 2.49 | 2.87 |
| August | 44,132 | 3,640 | 16,509 | 4.86 | 5.60 |
| September | 16,120 | 4,360 | 6,764 | 1.99 | 2.22 |
| October | 13,420 | 3,640 | 5,116 | 1.51 | 1.74 |
| November | 6,380 | 3,100 | 3,683 | 1.08 | 1.20 |
| December | 104,640 | 3,280 | 12,506 | 3.68 | 4.24 |
| The year | 104,640 | 2,420 | 8,636 | 2.54 | 34.64 |

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER NEAR SALISBURY, N. C.—*Continued.*

[Drainage area, 3,399 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1902. | | | | | |
| January | 8,360 | 3,780 | 5,678 | 1.67 | 1.93 |
| February | 27,295 | 4,580 | 8,763 | 2.58 | 2.69 |
| March | 32,740 | 5,390 | 9,759 | 2.87 | 3.31 |
| April | 9,480 | 4,900 | 6,031 | 1.77 | 1.97 |
| May | 5,900 | 3,470 | 4,530 | 1.33 | 1.53 |
| June | 55,700 | 2,570 | 7,700 | 2.27 | 2.53 |
| July | 5,220 | 1,980 | 2,974 | 0.88 | 1.01 |
| August | 9,670 | 1,465 | 3,108 | 0.91 | 1.05 |
| September | 10,620 | 1,580 | 2,871 | 0.84 | 0.94 |
| October | 10,810 | 1,350 | 3,512 | 1.03 | 1.19 |
| November | 12,200 | 2,120 | 3,833 | 1.13 | 1.26 |
| December | 16,750 | 3,940 | 7,273 | 2.14 | 2.47 |
| The year | 55,700 | 1,350 | 5,502 | 1.62 | 21.88 |
| 1903. | | | | | |
| January | 38,070 | 3,750 | 8,421 | 2.48 | 2.86 |
| February | 38,650 | 5,030 | 12,677 | 3.73 | 3.88 |
| March | 76,200 | 6,475 | 15,798 | 4.65 | 5.36 |
| April | 39,565 | 6,475 | 12,174 | 3.58 | 3.99 |
| May | 10,370 | 4,230 | 5,393 | 1.59 | 1.83 |
| June | 32,480 | 3,910 | 7,446 | 2.19 | 2.44 |
| July | 7,960 | 1,865 | 3,872 | 1.14 | 1.31 |
| August | 12,600 | 1,865 | 4,744 | 1.40 | 1.61 |
| September | 21,100 | 1,865 | 4,343 | 1.28 | 1.43 |
| October | 8,300 | 1,620 | 2,536 | .75 | .86 |
| November | 5,350 | 1,740 | 2,542 | .75 | .84 |
| December | 4,380 | 1,500 | 2,260 | .66 | .76 |
| The year | 76,200 | 1,500 | 6,850 | 2.02 | 27.17 |
| 1904. | | | | | |
| January | 4,110 | 1,300 | 2,226 | 0.655 | .755 |
| February | 13,020 | 2,026 | 4,151 | 1.22 | 1.32 |
| March | 13,440 | 2,445 | 4,177 | 1.23 | 1.34 |
| April | 3,405 | 1,950 | 2,370 | .697 | .778 |
| May | 19,320 | 1,950 | 3,521 | 1.04 | 1.20 |
| June | 18,270 | 1,860 | 4,770 | 1.40 | 1.56 |
| July | 12,810 | 1,685 | 3,624 | 1.07 | 1.23 |
| August | 11,987 | 1,860 | 4,434 | 1.30 | 1.50 |
| September | 5,768 | 1,372 | 2,376 | .699 | .780 |
| October | 1,372 | 1,050 | 1,268 | .373 | .430 |
| November | 2,775 | 1,372 | 1,931 | .568 | .634 |
| December | 5,455 | 1,523 | 2,630 | .774 | .892 |
| The year | 19,320 | 1,050 | 2,873 | .919 | 12.42 |

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER NEAR SALISBURY, N. C.—*Continued.*

[Drainage area, 3,399 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 16,000 | 1,235 | 4,007 | 1.18 | 1.36 |
| February | 27,520 | 1,950 | 7,107 | 2.09 | 2.18 |
| March | 5,300 | 2,445 | 3,447 | 1.01 | 1.16 |
| April | 12,750 | 2,140 | 4,153 | 1.22 | 1.36 |
| May | 14,320 | 2,240 | 5,977 | 1.76 | 2.03 |
| June | 4,110 | 1,685 | 2,332 | .686 | .765 |
| July | 33,820 | 1,770 | 7,835 | 2.31 | 2.66 |
| August | 22,890 | 2,340 | 6,678 | 1.97 | 2.27 |
| September | 4,995 | 1,770 | 2,381 | .700 | .781 |
| October | 7,190 | 1,600 | 2,221 | .653 | .753 |
| November | 2,045 | 1,685 | 1,818 | .535 | .597 |
| December | 31,460 | 1,770 | 6,513 | 1.92 | 2.21 |
| The year | 33,820 | 1,235 | 4,539 | 1.34 | 18.13 |
| 1906. | | | | | |
| January | 34,600 | 2,990 | 10,300 | 3.03 | 3.49 |
| February | 6,760 | 3,130 | 4,190 | 1.23 | 1.28 |
| March | 14,600 | 3,270 | 6,020 | 1.77 | 2.04 |
| April | 11,600 | 2,590 | 4,630 | 1.36 | 1.52 |
| May | 6,760 | 2,340 | 3,460 | 1.02 | 1.18 |
| June | 16,400 | 2,340 | 6,230 | 1.83 | 2.04 |
| July | 21,500 | 2,720 | 7,540 | 2.22 | 2.56 |
| August | 51,400 | 3,420 | 10,900 | 3.21 | 3.70 |
| September | 38,800 | 4,170 | 7,630 | 2.24 | 2.50 |
| October | 36,400 | 4,010 | 7,700 | 2.26 | 2.61 |
| November | 31,000 | 4,010 | 6,140 | 1.81 | 2.02 |
| December | 6,580 | 3,270 | 4,720 | 1.39 | 1.60 |
| The year | 51,400 | 2,340 | 6,620 | 1.95 | 26.54 |

MONTHLY DISCHARGE OF YADKIN RIVER AT PIEDMONT TOLL BRIDGE, NEAR SALISBURY, N. C.

| Month. | Discharge in Second-feet. | | | | Run-off. |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Per Square Mile. | Depth in Inches on Drainage Area. |
| 1907. | | | | | |
| January | 23,200 | 3,420 | 5,410 | 1.59 | 1.83 |
| February | 6,950 | 3,420 | 4,020 | 1.18 | 1.23 |
| March | 8,080 | 3,270 | 5,010 | 1.47 | 1.70 |
| April | 13,300 | 3,560 | 5,640 | 1.66 | 1.85 |
| May | 5,160 | 2,720 | 3,640 | 1.07 | 1.23 |
| June | 21,500 | 3,270 | 7,140 | 2.10 | 2.34 |
| July | 8,460 | 2,720 | 4,130 | 1.21 | 1.40 |
| August | 6,220 | 2,220 | 3,310 | .974 | 1.12 |
| September | 28,000 | 1,880 | 3,980 | 1.17 | 1.30 |
| October | 3,860 | 1,990 | 2,580 | .759 | 0.88 |
| November | 22,100 | 2,460 | 4,850 | 1.43 | 1.60 |
| December | 38,800 | 2,860 | 8,620 | 2.54 | 2.93 |
| The year | 38,800 | 1,880 | 4,860 | 1.43 | 19.41 |

YADKIN RIVER AT SILOAM, N. C.

This station was established on August 2, 1900, and was located at a ferry across the river at Siloam, a small station on the Wilkesboro branch of the Southern Railway, the measurements being made from the ferryboat. The gage rod was nailed to a tree about 50 yards above the ferry, and was referred to a bench mark on the south bank. This bench mark is a notch cut in the outermost of a group of three sycamore trees standing at the water's edge, about 25 feet above the ferry landing, the notch being about 8 feet from the ground.

When the gage was established the reading was 2.7 feet, and the water level stood 9.6 feet below the bench mark. This gage was washed away by a freshet on September 16, and was not replaced until October 1. The zero of the second gage was made to read 1 foot below the reading of the original gage.

The gage heights printed herewith have been adjusted to the gage as originally established.

The station was abandoned on December 31, 1901.

DISCHARGE MEASUREMENTS OF YADKIN RIVER AT SILOAM, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second feet). |
|---|---|---|---|
| 1900. | | | |
| July 11 | N. C. Curtis | 2.90 | 1,367 |
| Aug. 3 | ----do | 2.60 | 1,218 |
| Oct. 31 | ----do | 3.10 | 1,469 |
| 1901. | | | |
| Apr. 15 | N. C. Curtis | 5.00 | 5,237 |

DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT SILOAM, N. C., FOR 1900 AND 1901.

| 1900. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | 2.60 | 3.00 | 3.10 |
| 2 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | 2.60 | 3.00 | 3.10 |
| 3 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | 2.00 | 2.70 | 3.30 | 3.20 |
| 4 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.05 | 2.00 | 2.70 | 3.10 | 3.20 |
| 5 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | 2.00 | 2.80 | 2.90 | 3.10 |
| 6 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.95 | 2.00 | 2.80 | 2.90 | 3.10 |
| 7 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.90 | 2.00 | 2.80 | 2.90 | 3.10 |
| 8 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.90 | 2.00 | 2.90 | 3.00 | 3.10 |
| 9 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.90 | 2.00 | 2.80 | 3.00 | 3.10 |
| 10 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.80 | 2.00 | 2.80 | 2.90 | 3.20 |
| 11 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.80 | 2.00 | 2.80 | 2.90 | 3.20 |
| 12 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.80 | 2.00 | 2.80 | 2.90 | 3.20 |
| 13 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 1.85 | 2.00 | 3.10 | 2.90 | 3.10 |
| 14 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.05 | 2.05 | 2.90 | 2.90 | 3.10 |
| 15 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | 2.20 | 2.80 | 2.90 | 3.10 |
| 16 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | ------ | 2.80 | 3.00 | 3.10 |
| 17 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | ------ | 2.80 | 3.00 | 3.10 |
| 18 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | ------ | 2.80 | 3.00 | 3.10 |
| 19 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | ------ | 2.80 | 3.00 | 3.10 |
| 20 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.10 | ------ | 2.80 | 3.00 | 3.10 |
| 21 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.60 | ------ | 2.80 | 3.10 | 3.20 |
| 22 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 3.05 | ------ | 3.10 | 3.10 | 3.20 |
| 23 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.95 | ------ | 3.60 | 3.00 | 3.20 |
| 24 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 3.00 | ------ | 11.70 | 3.00 | 3.20 |
| 25 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.90 | ------ | 5.00 | 3.30 | 3.10 |
| 26 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.75 | ------ | 4.10 | 11.80 | 3.10 |
| 27 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.70 | ------ | 3.90 | 11.30 | 3.20 |
| 28 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | ------ | 3.70 | 11.10 | 3.20 |
| 29 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | ------ | 3.10 | 9.50 | 3.20 |
| 30 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | ------ | 3.10 | 3.30 | 3.60 |
| 31 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 2.00 | ------ | 3.10 | ------ | 3.70 |
| 1901. | | | | | | | | | | | | |
| 1 | 3.20 | 3.30 | 3.10 | 3.30 | 4.50 | 4.60 | 8.60 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 |
| 2 | 3.20 | 3.30 | 3.10 | 3.30 | 4.50 | 4.50 | 8.60 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 |
| 3 | 3.30 | 3.30 | 3.10 | 3.20 | 4.60 | 4.50 | 4.70 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 |
| 4 | 3.20 | 3.30 | 3.10 | 3.20 | 4.60 | 4.50 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 | 4.90 |
| 5 | 3.20 | 3.30 | 3.30 | 3.30 | 4.50 | 4.60 | 5.10 | 4.60 | 4.70 | 4.60 | 4.60 | 4.80 |
| 6 | 3.30 | 3.30 | 3.20 | 3.30 | 4.50 | 4.60 | 5.80 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 |
| 7 | 3.30 | 3.40 | 3.20 | 3.30 | 4.50 | 4.50 | 4.60 | 4.70 | 4.60 | 4.70 | 4.60 | 4.60 |
| 8 | 3.20 | 3.30 | 3.20 | 3.30 | 4.60 | 4.50 | 4.70 | 4.70 | 4.60 | 4.70 | 4.60 | 4.60 |
| 9 | 3.20 | 3.40 | 3.40 | 3.20 | 4.50 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 | 4.60 |
| 10 | 3.40 | 3.40 | 3.60 | 3.20 | 4.50 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 | 4.60 |
| 11 | 3.70 | 3.30 | 3.50 | 3.30 | 4.60 | 4.70 | 4.70 | 6.30 | 4.60 | 4.60 | 4.60 | 4.60 |
| 12 | 4.60 | 3.30 | 3.50 | 3.30 | 4.60 | 4.70 | 4.70 | 7.40 | 4.60 | 4.70 | 4.60 | 4.60 |
| 13 | 3.70 | 3.30 | 3.30 | 3.40 | 4.60 | 4.60 | 4.90 | 12.20 | 4.60 | 4.80 | 4.60 | 4.60 |
| 14 | 3.50 | 3.30 | 3.30 | 3.40 | 4.60 | 4.90 | 7.80 | 11.50 | 4.70 | 4.60 | 4.70 | 4.90 |
| 15 | 3.30 | 3.30 | 3.20 | 3.30 | 4.50 | 11.70 | 6.10 | 11.80 | 4.60 | 4.60 | 4.60 | 12.60 |
| 16 | 3.30 | 3.30 | 3.20 | 3.30 | 4.50 | 11.90 | 4.60 | 11.30 | 4.60 | 4.60 | 4.60 | 9.30 |
| 17 | 3.30 | 3.30 | 3.20 | 3.30 | 5.60 | 11.80 | 4.60 | 12.60 | 4.60 | 4.60 | 4.60 | 8.20 |
| 18 | 3.30 | 3.30 | 3.20 | 3.30 | 5.00 | 11.30 | 5.30 | 10.30 | 4.60 | 4.60 | 4.60 | 4.80 |
| 19 | 3.30 | 3.20 | 3.20 | 3.70 | 4.90 | 8.40 | 4.70 | 5.10 | 4.60 | 4.60 | 4.60 | 4.70 |
| 20 | 3.30 | 3.20 | 3.20 | (*) | 4.90 | 8.60 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 | 4.60 |
| 21 | 3.30 | 3.20 | 3.30 | ------ | 5.30 | 10.30 | 4.60 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 |
| 22 | 3.40 | 3.30 | 3.30 | ------ | ‡14.50 | 10.40 | 4.60 | 4.70 | 4.70 | 4.60 | 4.60 | 4.60 |
| 23 | 3.40 | 3.30 | 3.20 | ------ | 8.00 | 9.60 | 4.60 | 7.30 | 4.60 | 4.60 | 4.70 | 4.60 |
| 24 | 3.30 | 3.30 | 3.20 | ------ | 6.00 | 8.80 | 4.60 | ------ | 4.60 | 4.60 | 4.80 | 4.60 |
| 25 | 3.30 | 3.20 | 3.30 | ------ | 5.50 | 8.40 | 4.70 | 7.40 | 4.60 | 4.60 | 4.60 | 4.60 |
| 26 | 3.20 | 3.20 | 10.90 | ------ | 5.60 | 4.80 | 4.60 | 4.70 | 4.60 | 4.60 | 4.60 | 4.60 |
| 27 | 3.20 | 3.10 | 9.10 | ------ | 5.60 | 4.80 | 4.70 | 4.70 | 4.70 | 4.60 | 4.60 | 4.70 |
| 28 | 3.20 | 3.10 | 3.70 | ------ | 5.10 | 5.20 | 4.60 | 4.60 | 4.70 | 4.60 | 4.60 | 5.30 |
| 29 | 3.20 | ------ | 6.80 | ------ | 4.50 | 8.40 | 4.70 | 4.60 | 4.80 | 4.60 | 4.60 | 12.90 |
| 30 | 3.30 | ------ | 3.40 | 4.50 | 4.60 | 9.90 | 4.70 | 4.60 | 4.70 | 4.60 | 4.60 | 10.20 |
| 31 | 3.30 | ------ | 3.30 | ------ | 4.60 | ------ | 4.60 | 4.80 | ------ | 4.60 | ------ | 8.40 |

*Gage carried away; replaced April 30. ‡Flood estimated.

RATING TABLE FOR YADKIN RIVER, AT SILOAM, N. C., FOR 1900-1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.7 | 850 | 4.3 | 3,450 | 6.9 | 10,180 | 9.5 | 16,940 |
| 1.8 | 870 | 4.4 | 3,700 | 7.0 | 10,440 | 9.6 | 17,200 |
| 1.9 | 900 | 4.5 | 3,950 | 7.1 | 10,700 | 9.7 | 17,460 |
| 2.0 | 930 | 4.6 | 4,200 | 7.2 | 10,960 | 9.8 | 17,720 |
| 2.1 | 975 | 4.7 | 4,460 | 7.3 | 11,220 | 9.9 | 17,980 |
| 2.2 | 1,020 | 4.8 | 4,720 | 7.4 | 11,480 | 10.0 | 18,240 |
| 2.3 | 1,070 | 4.9 | 4,980 | 7.5 | 11,740 | 10.1 | 18,500 |
| 2.4 | 1,120 | 5.0 | 5,240 | 7.6 | 12,000 | 10.2 | 18,760 |
| 2.5 | 1,170 | 5.1 | 5,500 | 7.7 | 12,260 | 10.3 | 19,020 |
| 2.6 | 1,220 | 5.2 | 5,760 | 7.8 | 12,520 | 10.4 | 19,280 |
| 2.7 | 1,270 | 5.3 | 6,020 | 7.9 | 12,780 | 10.5 | 19,540 |
| 2.8 | 1,320 | 5.4 | 6,280 | 8.0 | 13,040 | 10.6 | 19,800 |
| 2.9 | 1,370 | 5.5 | 6,540 | 8.1 | 13,300 | 10.7 | 20,060 |
| 3.0 | 1,420 | 5.6 | 6,800 | 8.2 | 13,560 | 10.8 | 20,320 |
| 3.1 | 1,470 | 5.7 | 7,060 | 8.3 | 13,820 | 10.9 | 20,580 |
| 3.2 | 1,540 | 5.8 | 7,320 | 8.4 | 14,080 | 11.0 | 20,840 |
| 3.3 | 1,630 | 5.9 | 7,580 | 8.5 | 14,340 | 11.1 | 21,100 |
| 3.4 | 1,740 | 6.0 | 7,840 | 8.6 | 14,600 | 11.2 | 21,360 |
| 3.5 | 1,880 | 6.1 | 8,100 | 8.7 | 14,860 | 11.3 | 21,620 |
| 3.6 | 2,020 | 6.2 | 8,360 | 8.8 | 15,120 | 11.4 | 21,880 |
| 3.7 | 2,180 | 6.3 | 8,620 | 8.9 | 15,380 | 11.5 | 22,140 |
| 3.8 | 2,350 | 6.4 | 8,880 | 9.0 | 15,640 | 11.6 | 22,400 |
| 3.9 | 2,540 | 6.5 | 9,140 | 9.1 | 15,900 | 11.7 | 22,660 |
| 4.0 | 2,740 | 6.6 | 9,400 | 9.2 | 16,160 | 11.8 | 22,920 |
| 4.1 | 2,960 | 6.7 | 9,660 | 9.3 | 16,420 | 11.9 | 23,180 |
| 4.2 | 3,200 | 6.8 | 9,920 | 9.4 | 16,680 | 12.0 | 23,440 |

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER AT SILOAM, N. C.

[Drainage area, 1,219 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1900. | | | | | | |
| August 3 to 31 | ---------- | ---------- | 1,031 | 0.85 | 0.91 | 2.56 |
| September 1 to 15 | ---------- | ---------- | 937 | .77 | .44 | 3.52 |
| October | 22,660 | 1,220 | 2,295 | 1.88 | 2.17 | 5.62 |
| November | 22,920 | 1,370 | 3,994 | 3.28 | 3.65 | ----- |
| December | 2,180 | 1,470 | 1,538 | 1.26 | 1.45 | 4.11 |
| 1901. | | | | | | |
| January | 4,200 | 1,540 | 1,738 | 1.43 | 1.65 | 3.18 |
| February | 1,740 | 1,470 | 1,614 | 1.32 | 1.38 | 1.45 |
| March | 20,580 | 1,470 | 2,970 | 2.40 | 2.77 | 5.11 |
| April 1 to 19* | ---------- | ---------- | 1,762 | 1.45 | 1.08 | 8.04 |
| May | 29,940 | 3,950 | 5,864 | 4.81 | 5.54 | 7.69 |
| June | 23,180 | 3,950 | 10,329 | 8.47 | 9.45 | 7.79 |
| July | 14,600 | 4,200 | 5,601 | 4.59 | 5.29 | 5.37 |
| August | 25,000 | 4,200 | 8,552 | 7.02 | 8.09 | 17.05 |
| September | 4,720 | 4,200 | 4,295 | 3.52 | 3.93 | 3.98 |
| October | 4,720 | 4,200 | 4,242 | 3.48 | 4.01 | 1.01 |
| November | 4,720 | 4,200 | 4,235 | 3.47 | 3.88 | 1.15 |
| December | 25,780 | 4,200 | 7,211 | 5.92 | 6.82 | 9.94 |
| The year | 29,940 | 1,470 | 4,868 | 3.99 | 53.89 | 71.76 |

*Gage washed out by flood April 20.

YADKIN RIVER AT NORTH WILKESBORO, N. C.

This station was established April 10, 1903. It is located at the lower highway bridge between Wilkesboro and North Wilkesboro, about one-half mile below North Wilkesboro railroad station and three-fourths of a mile below the mouth of Reddie River.

The channel is straight above the station, but it makes a very slight curve beneath the bridge. Below the station the channel is straight for about 600 feet. The water is swift both above and below. The right bank is low and subject to overflow, but all water must pass beneath the bridge and its approaches. The left bank is high and rocky and does not overflow at the bridge, but is subject to overflow above. The bed of the stream is rocky, with sand in places. There is but one channel at all stages.

Discharge measurements are made from the downstream side of the bridge, to which the gage is attached. The bridge consists of a single steel span, about 125 feet long, under which the river flows at ordinary stages, and three wooden spans of about 50 feet each on the right bank. There are also wooden trestle approaches about 170 feet long on the right bank and about 40 feet on the left bank. The initial point for soundings is the end of the downstream guard rail at the left end of the bridge. Distances are measured along this guard rail and are marked in white paint.

The scale of the standard chain gage is fastened to the downstream guard rail, with its zero 7.63 feet east of the center of the second strut from the west end of the span. The distance from the end of the weight to the marker is 33.38 feet. The gage is read once each day by U. H. Wyatt. Bench mark No. 1 is the top surface of the outer eyebar of the lower chord opposite a point 100 feet from the initial point for soundings. Its elevation is 30.75 feet above gage datum. Bench mark No. 2 is the top of the downstream end of the third floor beam from the left bank. Its elevation is 30.33 feet above gage datum. Bench mark No. 3 is a copper plug set in rock in the face of the railroad cut on the left bank of the river, 21 feet to the left of the center of the railroad track and 15 feet downstream from the line of the lower side of the highway bridge. Its elevation is 28.90 feet above gage datum.

Discharge Measurements of Yadkin River at North Wilkesboro, N. C., in 1903.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| Apr. 10 | E. W. Myers | 4.00 | 2,969 |
| Apr. 11 | ----do | 3.67 | 2,797 |
| June 16 | ----do | 1.56 | 977 |
| June 16 | ----do | 1.56 | 1,005 |
| June 17 | ----do | 1.46 | 965 |
| July 16 | B. S. Drane | 1.15 | 865 |
| July 16 | ----do | 1.17 | 830 |
| Aug. 24 | ----do | .76 | 675 |
| Aug. 24 | ----do | .73 | 659 |
| Aug. 25 | ----do | .71 | 630 |
| Oct. 2 | ----do | .41 | 509 |
| Oct. 2 | ----do | .40 | 479 |
| Oct. 3 | ----do | .37 | 491 |
| Nov. 6 | ----do | .71 | 691 |
| Nov. 6 | ----do | .71 | 693 |

Discharge Measurements of Yadkin River at North Wilkesboro, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Mar. 11 | B. S. Drane | 95 | 434 | 2.30 | 1.17 | 1,000 |
| Mar. 12 | ----do | 95 | 399 | 2.26 | .92 | 903 |
| Apr. 18 | ----do | 93 | 308 | 1.87 | .31 | 574 |
| Apr. 19 | ----do | 93 | 306 | 1.88 | .26 | 575 |
| June 8 | ----do | 96 | 396 | 2.54 | 1.24 | 1,004 |
| June 8 | ----do | 96 | 396 | 2.55 | 1.22 | 1,009 |
| Sept. 22 | ----do | 93 | 218 | 2.13 | .09 | 465 |
| Sept. 22 | ----do | 93 | 218 | 1.96 | .09 | 428 |
| Dec. 21 | ----do | 92 | 229 | 2.13 | .07 | 452 |
| Dec. 21 | ----do | 92 | 226 | 2.06 | .03 | 432 |
| 1905. | | | | | | |
| Jan. 3 | B. S. Drane | 93 | 290 | 2.15 | 0.30 | 580 |
| Jan. 4 | ----do | 92 | 252 | 1.98 | .00 | 465 |
| Apr. 25 | ----do | 94 | 306 | 1.94 | .34 | 593 |
| Apr. 26 | ----do | 94 | 313 | 2.04 | .50 | 638 |
| Aug. 22 | ----do | 95 | 319 | 2.58 | 1.02 | 824 |
| Aug. 23 | ----do | 96 | 330 | 2.66 | 1.23 | 878 |
| Sept. 19 | ----do | 94 | 272 | 2.09 | .53 | 567 |
| 1906. | | | | | | |
| June 19 | W. E. Hall | 101 | 629 | ---- | 3.00 | 2,300 |
| June 19 | ----do | 101 | 619 | ---- | 2.94 | 2,260 |
| 1907. | | | | | | |
| Mar. 27 | Warren E. Hall | 97 | 363 | 2.50 | 1.33 | 909 |
| Sept. 4 | Frank P. Thomas | 93 | 269 | 2.17 | 0.90 | 584 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1903.

| Day. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2.25 | 1.75 | 1.35 | 2.25 | 1.85 | 0.40 | 0.40 | 0.30 |
| 2 | | 2.20 | 1.85 | 1.25 | 1.20 | .85 | .40 | .40 | .40 |
| 3 | | 2.20 | 2.15 | 1.40 | 1.40 | .80 | .40 | .40 | .40 |
| 4 | | 2.30 | 1.70 | 1.25 | 1.90 | .70 | .35 | .50 | .40 |
| 5 | | 2.20 | 2.45 | 3.15 | 1.50 | .70 | .35 | 1.80 | .40 |
| 6 | | 2.10 | 6.75 | 2.25 | 1.20 | .60 | .35 | .75 | .30 |
| 7 | | 2.10 | 4.45 | 2.15 | 1.00 | .60 | .70 | .55 | .35 |
| 8 | | 2.05 | 3.05 | 1.55 | .85 | .60 | 7.20 | .50 | .35 |
| 9 | | 2.00 | 2.45 | 1.40 | .85 | .55 | 1.35 | .50 | .30 |
| 10 | 3.95 | 1.95 | 3.20 | 1.30 | .80 | .90 | .80 | .50 | .35 |
| 11 | 3.65 | 1.95 | 2.35 | 1.20 | 1.35 | .65 | .60 | .45 | .30 |
| 12 | 3.35 | 1.90 | 2.25 | 1.50 | .90 | .55 | .55 | .45 | .30 |
| 13 | 4.25 | 1.90 | 1.95 | 2.05 | .80 | .50 | .50 | .45 | .45 |
| 14 | 3.85 | 2.15 | 1.85 | 1.60 | .95 | .50 | .50 | .40 | .35 |
| 15 | 3.80 | 1.90 | 1.80 | 1.30 | 1.80 | .45 | .45 | .35 | .30 |
| 16 | 3.40 | 1.85 | 1.65 | 1.20 | 1.25 | .60 | .60 | .40 | .15 |
| 17 | 3.15 | 1.75 | 1.45 | 1.35 | 1.75 | 2.45 | 1.55 | .90 | .25 |
| 18 | 3.00 | 1.75 | 1.45 | 1.20 | 1.65 | .95 | 1.20 | 1.15 | .15 |
| 19 | 2.95 | 1.65 | 1.40 | 1.05 | 1.25 | .75 | .80 | .60 | .05 |
| 20 | 2.85 | 1.65 | 1.40 | 1.05 | 1.15 | .65 | .65 | .50 | .90 |
| 21 | 2.80 | 1.65 | 1.35 | .95 | 1.00 | .60 | .55 | .50 | .95 |
| 22 | 2.70 | 1.60 | 1.30 | .95 | .90 | .55 | .50 | .45 | .55 |
| 23 | 2.65 | 1.55 | 1.30 | .90 | .80 | .55 | .55 | .45 | .40 |
| 24 | 2.50 | 1.50 | 1.45 | .85 | .80 | .55 | .50 | .45 | .40 |
| 25 | 2.60 | 2.00 | 1.75 | .85 | .75 | .50 | .45 | .40 | .45 |
| 26 | 2.60 | 1.60 | 1.65 | .80 | .70 | .50 | .45 | .40 | .55 |
| 27 | 2.45 | 1.65 | 1.80 | .75 | .60 | .50 | .40 | .30 | .10 |
| 28 | 2.35 | 1.70 | 1.95 | .75 | .60 | .50 | .35 | .25 | .55 |
| 29 | 2.30 | 1.70 | 1.95 | 1.10 | .55 | .40 | .40 | .40 | .35 |
| 30 | 2.30 | 2.00 | 1.45 | .90 | 1.10 | .40 | .40 | .40 | .30 |
| 31 | | 1.85 | | 1.20 | .80 | | .40 | | .30 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1904.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.30 | *0.40 | 0.85 | 0.60 | 0.20 | 4.60 | 2.50 | 1.25 | 0.50 | 0.00 | —0.05 | —0.05 |
| 2 | .30 | —‡.20 | .80 | .50 | .20 | 2.70 | 1.25 | 1.20 | .70 | .00 | — .05 | — .05 |
| 3 | .30 | *.40 | .70 | .45 | 1.30 | 1.75 | .90 | 1.35 | .45 | .00 | — .05 | .20 |
| 4 | —‡.05 | ‡.20 | .65 | .40 | 2.20 | 1.40 | .75 | .70 | .40 | — .05 | .25 | .10 |
| 5 | —‡.05 | ‡.20 | .50 | .35 | 1.10 | 1.10 | 1.00 | .95 | 2.40 | .05 | 1.30 | .10 |
| 6 | .10 | *.50 | .40 | .30 | .90 | 2.15 | 1.15 | 1.50 | .85 | .00 | .25 | 1.30 |
| 7 | .40 | .50 | 7.50 | .50 | .90 | 1.45 | .80 | .75 | .60 | .00 | .00 | .40 |
| 8 | .20 | 1.95 | 3.70 | .50 | 1.10 | 1.50 | 1.35 | 2.25 | .50 | .00 | .00 | .20 |
| 9 | .20 | .85 | 2.10 | 1.05 | 2.90 | .95 | .70 | 1.20 | .45 | — .05 | .00 | .10 |
| 10 | .25 | .60 | 1.50 | .55 | 2.20 | .95 | 1.20 | 2.15 | .40 | — .10 | .00 | .10 |
| 11 | .25 | .55 | 1.20 | .50 | 1.60 | 1.50 | .70 | 1.60 | .40 | — .10 | — .05 | .10 |
| 12 | .30 | .45 | .90 | .40 | 1.20 | 1.10 | .85 | 1.20 | .45 | — .10 | .05 | .05 |
| 13 | .30 | .30 | .75 | .35 | .95 | .85 | .55 | .95 | .40 | — .10 | .60 | .00 |
| 14 | .30 | .40 | .80 | .30 | .75 | .70 | .40 | .90 | .55 | — .10 | .75 | — .10 |
| 15 | *.00 | .35 | .70 | .25 | .90 | .65 | .40 | 1.70 | .30 | — .10 | .20 | .00 |
| 16 | ‡.20 | .30 | .55 | .20 | .60 | .65 | .40 | 1.60 | .20 | — .10 | .10 | .00 |
| 17 | .25 | .10 | .50 | .25 | .50 | 1.95 | .60 | .75 | .20 | — .10 | .00 | .10 |
| 18 | .05 | .30 | .50 | .25 | 9.80 | .90 | .35 | .50 | .10 | — .10 | .00 | .10 |
| 19 | —*.05 | .30 | .50 | .25 | 3.40 | .90 | .25 | .40 | .10 | — .10 | .00 | — .10 |
| 20 | — .20 | .45 | .45 | .20 | 2.00 | 1.00 | .20 | 1.05 | .10 | — .10 | .00 | — .10 |
| 21 | ‡.30 | .30 | .55 | .20 | 1.40 | .75 | .20 | 1.20 | .10 | — .10 | .00 | .10 |
| 22 | .35 | 2.35 | .80 | .20 | 1.10 | .70 | .20 | 1.25 | .10 | — .10 | .00 | — .05 |
| 23 | .20 | 1.90 | .65 | .20 | .90 | .50 | .20 | .75 | .00 | — .15 | .00 | — .05 |
| 24 | .90 | 1.15 | 1.60 | .20 | .75 | .45 | .30 | 4.50 | .00 | — .15 | .00 | .00 |
| 25 | .60 | .80 | 1.25 | .20 | .90 | .40 | 1.60 | 1.40 | .00 | — .15 | — .10 | .10 |
| 26 | .50 | .70 | 1.00 | .65 | .90 | .50 | 1.20 | 1.05 | .10 | — .15 | — .10 | .05 |
| 27 | .35 | .80 | 1.10 | .65 | .60 | .55 | .45 | .80 | .10 | — .05 | — .10 | .30 |
| 28 | .35 | .90 | .85 | .40 | .50 | 4.80 | .95 | .65 | .05 | — .05 | — .10 | 1.70 |
| 29 | * .25 | .90 | .70 | .30 | .40 | 2.50 | 6.70 | .60 | .05 | — .05 | — .10 | .60 |
| 30 | * .10 | ------- | .60 | .25 | .80 | 1.65 | 1.35 | .50 | .00 | — .05 | — .05 | .15 |
| 31 | * .10 | ------- | .60 | ------ | 1.70 | ------- | .85 | .45 | ------- | — .05 | ------- | .25 |

*Freeze. ‡Thaw.

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.25 | 0.2 | 1.3 | 0.35 | 0.3 | 0.3 | 0.75 | 0.4 | 0.6 | 0.2 | 0.2 | 0.15 |
| 2 | .2 | .2 | 1.3 | .35 | .25 | .25 | .9 | .3 | .7 | .2 | .2 | .15 |
| 3 | .25 | .1 | 1.15 | .3 | .3 | .25 | 3.1 | .35 | .75 | .2 | .2 | 5.1 |
| 4 | .05 | — .15 | 1.0 | .3 | .8 | .2 | .8 | 1.1 | 6.9 | .4 | .2 | 1.4 |
| 5 | .15 | .0 | 1.0 | .4 | .4 | .2 | .6 | 1.4 | 1.7 | .25 | .2 | .7 |
| 6 | .3 | — .2 | .95 | 1.1 | .8 | .15 | 1.65 | .7 | 1.1 | .2 | .2 | .5 |
| 7 | 2.0 | .2 | .85 | .65 | 2.65 | .1 | .7 | .55 | .9 | .2 | .2 | .5 |
| 8 | .55 | .3 | .75 | .5 | 1.2 | .15 | .4 | 2.75 | .75 | .2 | .2 | .4 |
| 9 | .15 | .1 | .75 | .4 | .8 | .05 | .45 | 4.0 | .65 | .2 | .2 | 3.6 |
| 10 | .5 | .2 | 1.4 | .5 | .6 | .0 | .3 | 3.0 | .6 | .2 | .2 | 2.7 |
| 11 | .35 | .3 | 1.2 | .45 | 1.35 | .0 | .5 | 2.4 | .6 | 3.8 | .2 | 1.4 |
| 12 | 4.2 | .4 | 1.05 | 3.8 | .65 | .0 | 8.6 | 4.3 | .6 | 1.05 | .2 | .95 |
| 13 | 3.2 | 2.1 | 1.1 | 2.15 | 1.3 | .0 | 12.50 | 2.8 | .6 | .5 | .2 | .8 |
| 14 | 1.7 | .8 | .85 | 1.8 | 3.6 | .0 | 6.6 | 2.6 | .5 | .35 | .2 | .7 |
| 15 | .9 | .55 | .75 | 1.3 | 1.9 | .0 | 3.5 | 1.85 | .5 | .3 | .2 | .95 |
| 16 | .4 | .2 | .65 | 1.15 | 4.1 | .25 | 3.5 | 2.2 | .5 | .25 | .2 | 1.7 |
| 17 | .4 | .55 | .6 | .85 | 3.0 | .4 | 1.9 | 1.5 | .65 | .25 | .2 | 1.2 |
| 18 | .5 | .15 | .55 | .7 | 1.9 | .4 | 1.4 | 1.3 | .5 | .25 | .2 | 1.05 |
| 19 | .45 | .3 | .55 | .6 | 1.4 | 2.4 | 1.45 | 1.25 | .5 | .25 | .2 | .9 |
| 20 | .3 | .65 | .5 | .6 | 1.1 | 1.65 | .95 | 1.15 | .5 | .25 | .25 | .85 |
| 21 | .3 | 3.7 | .65 | .5 | .85 | .8 | .8 | 1.1 | .45 | .25 | .25 | 8.1 |
| 22 | .25 | 3.4 | .6 | .5 | .75 | .5 | .9 | 1.15 | .4 | .2 | .2 | 2.85 |
| 23 | .2 | 3.4 | .45 | .4 | .9 | .5 | .8 | .9 | .3 | .2 | .1 | 1.95 |
| 24 | .1 | 2.5 | .5 | .4 | .75 | 1.1 | .65 | 1.0 | .3 | .2 | .1 | 1.7 |
| 25 | — .15 | 2.0 | .7 | .35 | .55 | .65 | .65 | 1.0 | .25 | .25 | .15 | 1.35 |
| 26 | — .6 | 1.8 | .5 | .4 | .7 | .4 | .5 | 1.6 | .2 | .65 | .15 | 1.1 |
| 27 | .2 | 1.55 | .6 | .85 | 1.0 | .3 | .4 | .9 | .2 | .4 | .15 | .95 |
| 28 | .45 | 1.35 | .4 | .5 | .6 | .15 | .5 | .75 | .2 | .3 | .15 | .9 |
| 29 | .3 | ------- | .4 | .4 | .55 | .1 | 1.15 | .65 | .2 | .25 | .15 | 1.1 |
| 30 | .25 | ------- | .5 | .4 | .65 | .5 | 1.05 | .65 | .2 | .25 | .15 | .85 |
| 31 | .2 | ------- | .5 | ------- | .45 | ------- | .6 | .6 | ------- | .25 | ------ | .7 |
| 1906. | | | | | | | | | | | | |
| 1 | 0.65 | 2.35 | 1.1 | 2.95 | 1.15 | 0.65 | 1.1 | 3.7 | 4.6 | 3.8 | 2.45 | 2.35 |
| 2 | .65 | 2.1 | 1.0 | 2.35 | 1.25 | 1.2 | 1.0 | 4.3 | 3.6 | 3.7 | 2.4 | 2.35 |
| 3 | 4.6 | 1.75 | 1.15 | 2.0 | 1.15 | .75 | 1.1 | 3.2 | 3.1 | 7.0 | 2.4 | 2.3 |
| 4 | 5.8 | 1.5 | 4.3 | 1.8 | 1.5 | .65 | 2.0 | 2.6 | 2.9 | 7.0 | 2.35 | 2.25 |
| 5 | 2.85 | 1.65 | 2.5 | 1.65 | 1.8 | 1.4 | 1.15 | 2.2 | 2.9 | 5.1 | 2.3 | 2.2 |
| 6 | 2.0 | 1.6 | 1.9 | 1.6 | 1.25 | 3.1 | 3.0 | 1.9 | 2.6 | 4.3 | 2.3 | 2.2 |
| 7 | 1.5 | 1.45 | 1.65 | 1.45 | 4.8 | 1.4 | 1.55 | 1.9 | 2.55 | 3.7 | 2.2 | 2.2 |
| 8 | 1.35 | 1.35 | 1.6 | 1.4 | 1.9 | 1.05 | 1.15 | 1.7 | 2.4 | 3.3 | 2.2 | 2.1 |
| 9 | 1.2 | 1.35 | 1.45 | 1.35 | 1.5 | 1.3 | 2.4 | 1.5 | 2.25 | 3.0 | 2.2 | 2.1 |
| 10 | .95 | 1.25 | 1.3 | 1.65 | 1.3 | 1.4 | 1.45 | 1.4 | 2.1 | 3.0 | 2.1 | 2.1 |
| 11 | .95 | 1.2 | 1.15 | 1.3 | 1.2 | 2.5 | 1.15 | 1.5 | 2.0 | 2.75 | 2.1 | 2.7 |
| 12 | 3.1 | 1.25 | 1.15 | 1.25 | 1.1 | 1.2 | 1.05 | 1.25 | 2.0 | 2.65 | 2.2 | 2.2 |
| 13 | 2.2 | 1.25 | 1.1 | 1.2 | 1.05 | 2.1 | 1.05 | 1.85 | 2.35 | 2.6 | 2.1 | 2.1 |
| 14 | 3.1 | 1.2 | 1.1 | 1.2 | 1.0 | 6.3 | .95 | 2.15 | 2.15 | 2.5 | 2.0 | 2.1 |
| 15 | 2.6 | 1.15 | 2.7 | 4.2 | .9 | 7.4 | 2.3 | 6.2 | 1.9 | 2.4 | 2.15 | 2.0 |
| 16 | 2.2 | 1.1 | 2.8 | 2.4 | .85 | 5.5 | 5.0 | 4.0 | 1.9 | 2.4 | 2.1 | 2.0 |
| 17 | 1.8 | 1.0 | 2.0 | 1.9 | .85 | 4.7 | 2.25 | 3.7 | 1.85 | 2.6 | 2.05 | 2.1 |
| 18 | 1.6 | 1.0 | 1.6 | 1.65 | .8 | 3.8 | 2.5 | 3.7 | 1.85 | 2.9 | 2.85 | 2.4 |
| 19 | 1.45 | 1.0 | 1.65 | 1.55 | .9 | 3.4 | 1.9 | 3.0 | 3.8 | 17.9 | 18.8 | 2.1 |
| 20 | 1.3 | 1.0 | 2.9 | 1.45 | .8 | 2.6 | 1.65 | 2.4 | 2.9 | 7.9 | 7.0 | 2.5 |
| 21 | 1.2 | 1.0 | 2.2 | 1.4 | .75 | 2.0 | 1.95 | 3.5 | 2.6 | 4.9 | 4.6 | 2.35 |
| 22 | 1.4 | 1.75 | 1.9 | 1.35 | .7 | 2.7 | 3.0 | 3.3 | 2.65 | 4.1 | 3.8 | 2.2 |
| 23 | 12.3 | 1.15 | 1.6 | 1.35 | .7 | 1.7 | 2.25 | 3.3 | 2.9 | 3.6 | 3.3 | 2.15 |
| 24 | 5.0 | 1.1 | 1.5 | 1.2 | .7 | 1.6 | 2.6 | 2.4 | 3.2 | 3.3 | 3.0 | 2.0 |
| 25 | 3.3 | 1.1 | 1.5 | 1.15 | .65 | 2.6 | 4.4 | 2.1 | 2.35 | 3.15 | 2.8 | 1.5 |
| 26 | 2.8 | 1.1 | 1.5 | 1.15 | .75 | 1.7 | 2.1 | 2.15 | 2.15 | 3.0 | 2.75 | 1.7 |
| 27 | 3.3 | 1.1 | 1.5 | 1.15 | 1.95 | 1.4 | 2.6 | 2.35 | 2.75 | 2.9 | 2.55 | 1.9 |
| 28 | 4.0 | 1.15 | 1.5 | 1.15 | 1.3 | 1.25 | 2.3 | 3.4 | 3.0 | 2.75 | 2.65 | 1.9 |
| 29 | 3.6 | ------- | 1.45 | 1.05 | .9 | 1.25 | 1.75 | 18.0 | 6.6 | 2.65 | 2.45 | 2.1 |
| 30 | 2.9 | ------- | 4.6 | 1.6 | .75 | 1.25 | 2.95 | 9.2 | 4.4 | 2.6 | 2.35 | 2.0 |
| 31 | 2.6 | ------- | 4.3 | ------- | .7 | ------- | 2.35 | 7.2 | ------- | 2.55 | ------ | 7.6 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.60 | 1.60 | 2.00 | 1.90 | 1.85 | 8.90 | 1.65 | 1.15 | 0.60 | 0.90 | 0.45 | 0.90 |
| 2 | 3.30 | 1.65 | 3.10 | 1.35 | 1.85 | 8.70 | 1.60 | 1.00 | 0.60 | 0.85 | 0.95 | 0.80 |
| 3 | 2.90 | 1.60 | 2.55 | 1.30 | 1.85 | 4.30 | 1.50 | 0.90 | 0.65 | 0.80 | 1.00 | 0.80 |
| 4 | 2.70 | 1.55 | 2.00 | 1.25 | 1.85 | 3.00 | 2.55 | 0.95 | 0.90 | 0.80 | 0.70 | 0.75 |
| 5 | 2.50 | 1.85 | 1.80 | 1.25 | 1.70 | 2.40 | 2.00 | 0.85 | 0.80 | 0.90 | 0.60 | 0.70 |
| 6 | 2.40 | 1.70 | 1.70 | 1.85 | 1.60 | 2.00 | 1.70 | 0.90 | 0.70 | 0.70 | 0.60 | 0.60 |
| 7 | 2.30 | 1.55 | 1.60 | 2.95 | 1.65 | 1.75 | 1.50 | 0.95 | 0.60 | 0.65 | 0.60 | 0.60 |
| 8 | 2.20 | 1.50 | 1.90 | 2.10 | 1.65 | 1.90 | 1.30 | 1.00 | 0.90 | 0.70 | 0.50 | 0.60 |
| 9 | 2.20 | 1.50 | 1.75 | 2.10 | 1.45 | 1.70 | 1.30 | 1.00 | 0.80 | 0.60 | 0.55 | 1.05 |
| 10 | 2.10 | 1.50 | 1.90 | 1.80 | 1.45 | 1.65 | 1.30 | 1.20 | 0.70 | 0.55 | 0.75 | 3.40 |
| 11 | 2.10 | 1.50 | 2.40 | 1.70 | 1.45 | 4.00 | 1.20 | 0.90 | 1.15 | 0.50 | 0.80 | 2.20 |
| 12 | 2.10 | 1.50 | 2.10 | 1.60 | 1.35 | 2.30 | 1.20 | 1.25 | 0.90 | 0.50 | 0.65 | 1.55 |
| 13 | 2.00 | 1.50 | 1.90 | 1.60 | 1.30 | 2.10 | 1.60 | 1.00 | 0.70 | 0.50 | 0.70 | 1.30 |
| 14 | 2.00 | 1.50 | 1.85 | 1.50 | 1.30 | 2.90 | 1.40 | 1.10 | 0.60 | 0.50 | 0.60 | 4.90 |
| 15 | 1.95 | 1.45 | 2.10 | 1.40 | 1.30 | 2.15 | 1.45 | 0.80 | 0.60 | 0.50 | 0.60 | 3.40 |
| 16 | 1.95 | 1.40 | 1.75 | 1.40 | 1.30 | 1.80 | 1.30 | 0.75 | 0.65 | 0.50 | 0.55 | 2.40 |
| 17 | 1.95 | 1.40 | 1.65 | 1.40 | 1.30 | 1.65 | 1.30 | 1.05 | 0.60 | 0.50 | 0.50 | 1.90 |
| 18 | 1.90 | 1.40 | 1.65 | 1.40 | 1.20 | 1.50 | 2 30 | 1.60 | 0.80 | 0.50 | 0.65 | 1.65 |
| 19 | 1.90 | 1.40 | 1.65 | 1.60 | 1.20 | 1.45 | 2.30 | 1.10 | 0.60 | 0.50 | 0.80 | 1.55 |
| 20 | 1.85 | 1.40 | 1.60 | 1.45 | 1.20 | 1.90 | 1.35 | 0.90 | 0.55 | 0.50 | 0.60 | 1.30 |
| 21 | 1.85 | 1.40 | 1.50 | 1.30 | 1.20 | 1.50 | 1.15 | 0.80 | 0.50 | 0.45 | 1.50 | 1.20 |
| 22 | 1.85 | 1.30 | 1.40 | 1.30 | 1.15 | 1.50 | 1.10 | 0.90 | 0.60 | 0.50 | 1.40 | 1.10 |
| 23 | 1.70 | 1.30 | 1.40 | 3.50 | 1.10 | 1.60 | 1.05 | 1.10 | 9.40 | 0.50 | 1.85 | 8.60 |
| 24 | 1.70 | 1.30 | 1.35 | 2.40 | 1.10 | 2.10 | 1.05 | 1.25 | 3.20 | 0.50 | 4.00 | 3.70 |
| 25 | 1.70 | 1.65 | 1.35 | 2.00 | 1.20 | 1.60 | 1.30 | 0.90 | 1.80 | 0.50 | 2.05 | 2.55 |
| 26 | 1.75 | 2.10 | 1.30 | 1.75 | 1.20 | 1.75 | 1.00 | 0.90 | 1.30 | 0.50 | 1.50 | 2.10 |
| 27 | 1.65 | 1.75 | 1.30 | 4.40 | 1.50 | 1.35 | 1.00 | 0.80 | 1.10 | 0.65 | 1.20 | 1.80 |
| 28 | 1.65 | 1.75 | 1.30 | 2.70 | 1.15 | 2.20 | 0.95 | 0.75 | 1.20 | 0.75 | 1.10 | 1.65 |
| 29 | 1.60 | ------- | 1.30 | 2.30 | 1.05 | 3.60 | 1.10 | 0.75 | 1.55 | 0.50 | 1.10 | 1.50 |
| 30 | 1.60 | ------- | 1.25 | 2.00 | 1.05 | 2.25 | 1.45 | 0.75 | 1.10 | 0.45 | 0.90 | 4.10 |
| 31 | 1.60 | ------- | 1.20 | ------- | 1.20 | ------- | 1.05 | 0.70 | ------- | 0.45 | ------ | 3.30 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.4 | 1.3 | 2.6 | 1.8 | 2.3 | 1.25 | 1.4 | 1.5 | 1.55 | .9 |
| 2 | 2.05 | 1.05 | 2.5 | 3.0 | 2.0 | 1.2 | 1.25 | 1.25 | 1.45 | .8 |
| 3 | 1.85 | 0.8 | 2.5 | 2.2 | 1.9 | 1.2 | 2.35 | 1.2 | 1.3 | .8 |
| 4 | 1.75 | 1.2 | 2.4 | 1.95 | 1.8 | 3.0 | 3.4 | 1.1 | 1.25 | .8 |
| 5 | 2.05 | 1.3 | 2.4 | 1.8 | 1.8 | 1.8 | 5.1 | 1.3 | 1.3 | .8 |
| 6 | 1.7 | 1.35 | 2.5 | 1.85 | 1.7 | 1.55 | 3.85 | 2.8 | 2.0 | .8 |
| 7 | 2.8 | 1.45 | 2.35 | 1.7 | 3.8 | 1.5 | 3.35 | 2.8 | 2.15 | .75 |
| 8 | 2.6 | 1.4 | 2.2 | 1.7 | 2.7 | 1.4 | 3.05 | 1.5 | 1.85 | .75 |
| 9 | 2.1 | 1.4 | 2.1 | 1.6 | 2.3 | 1.35 | 2.5 | 1.45 | 1.3 | 1.2 |
| 10 | 1.8 | 1.3 | 2.0 | 1.6 | 2.1 | 1.4 | 2.1 | 1.3 | 1.2 | 2.85 |
| 11 | 1.85 | 1.65 | 1.95 | 1.55 | 1.9 | 1.7 | 1.8 | 1.2 | 1.15 | 1.5 |
| 12 | 9.2 | 4.8 | 2.25 | 1.5 | 1.8 | 1.8 | 1.6 | 1.1 | 1.1 | 1.15 |
| 13 | 4.4 | 7.4 | 2.2 | 1.4 | 1.7 | 1.7 | 2.15 | 1.0 | 1.05 | 1.0 |
| 14 | 3.2 | 6.9 | 1.9 | 1.4 | 1.6 | 1.5 | 1.7 | 1.05 | 1.05 | .95 |
| 15 | 2.5 | 12.9 | 1.85 | 2.05 | 1.55 | 3.2 | 1.5 | 1.0 | 1.0 | .95 |
| 16 | 2.25 | 5.4 | 1.8 | 3.4 | 1.55 | 2.3 | 1.4 | 1.1 | .95 | .95 |
| 17 | 2.05 | 4.2 | 1.7 | 2.55 | 1.5 | 1.7 | 1.3 | 1.15 | .95 | .9 |
| 18 | 1.85 | 3.0 | 1.7 | 2.2 | 1.5 | 1.6 | 1.3 | 1.75 | .9 | .85 |
| 19 | 1.7 | 3.0 | 1.65 | 2.05 | 2.25 | 1.5 | 1.3 | 1.17 | .9 | .85 |
| 20 | 1.6 | 2.8 | 1.9 | 1.9 | 1.9 | 2.35 | 1.2 | 1.15 | .9 | .85 |
| 21 | 1.5 | 2.45 | 2.1 | 1.7 | 1.9 | 2.2 | 1.3 | 1.15 | .9 | .8 |
| 22 | 1.5 | 2.35 | 2.0 | 1.6 | 1.6 | 1.55 | 1.7 | 1.45 | .9 | .9 |
| 23 | 1.45 | 2.15 | 2.3 | 1.6 | 1.8 | 2.95 | 1.5 | 1.45 | .9 | 5.2 |
| 24 | 1.3 | 2.05 | 2.85 | 1.55 | 1.6 | 1.9 | 1.7 | 2.1 | .85 | 8.6 |
| 25 | 1.25 | 2.0 | 2.35 | 3.0 | 1.5 | 1.5 | 1.3 | 6.2 | .85 | 3.65 |
| 26 | 1.3 | 2.8 | 2.1 | 3.2 | 1.5 | 1.3 | 1.15 | 7.7 | .85 | 2.65 |
| 27 | 1.5 | 2.7 | 1.95 | 2.6 | 1.4 | 1.25 | 1.3 | 3.45 | .9 | 2.2 |
| 28 | 1.25 | 2.3 | 1.9 | 2.35 | 1.4 | 1.1 | 1.5 | 2.6 | 1.6 | 2.35 |
| 29 | 1.3 | 2.2 | 1.8 | 2.1 | 1.7 | 1.1 | 2.3 | 2.35 | 1.2 | 3.95 |
| 30 | 1.15 | ------- | 1.7 | 2.55 | 1.6 | 1.1 | 2.9 | 1.9 | 1.0 | 3.60 |
| 31 | 1.1 | ------- | 1.7 | ------- | 1.35 | ------- | 1.8 | 1.7 | ------- | 2.70 |

RATING TABLE FOR YADKIN RIVER AT NORTH WILKESBORO, N. C., FROM APRIL 1 TO DECEMBER 31, 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.05 | 365 | 0.8 | 680 | 1.6 | 1,018 | 2.4 | 1,490 |
| .1 | 386 | .9 | 722 | 1.7 | 1,065 | 2.5 | 1,570 |
| .2 | 428 | 1.0 | 764 | 1.8 | 1,115 | 2.6 | 1,650 |
| .3 | 470 | 1.1 | 806 | 1.9 | 1,165 | 2.7 | 1,730 |
| .4 | 512 | 1.2 | 848 | 2.0 | 1,220 | 2.8 | 1,820 |
| .5 | 554 | 1.3 | 890 | 2.1 | 1,280 | 2.9 | 1,920 |
| .6 | 596 | 1.4 | 932 | 2.2 | 1,345 | | |
| .7 | 638 | 1.5 | 974 | 2.3 | 1,415 | | |

Table uncertain above 1.6 feet gage height; the curve is a tangent above gage height 2.8 feet; differences 100 per tenth.

RATING TABLE FOR YADKIN RIVER AT NORTH WILKESBORO, N. C., FROM JANUARY 1, 1904, TO DECEMBER 31, 1904.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.00 | 417 | .60 | 710 | 1.20 | 1,010 | 1.80 | 1,345 |
| .10 | 465 | .70 | 760 | 1.30 | 1,060 | 1.90 | 1,410 |
| .20 | 513 | .80 | 810 | 1.40 | 1,115 | 2.00 | 1,475 |
| .30 | 562 | .90 | 860 | 1.50 | 1,170 | | |
| .40 | 611 | 1.00 | 910 | 1.60 | 1,225 | | |
| .50 | 660 | 1.10 | 960 | 1.70 | 1,285 | | |

The above table is applicable only for open-channel conditions. It is based upon 10 discharge measurements made during 1904. It is well defined between gage heights 0 feet and 1.30 feet. The table has been extended beyond these limits. Above gage height 2 feet the discharge has been estimated.

RATING TABLE FOR YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1905 AND 1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| —0.60 | 215 | 0.80 | 745 | 2.40 | 1,725 | 6.00 | 5,100 |
| — .50 | 245 | .90 | 790 | 2.60 | 1,880 | 7.00 | 6,100 |
| — .40 | 275 | 1.00 | 840 | 2.80 | 2,045 | 8.00 | 7,100 |
| — .30 | 305 | 1.10 | 890 | 3.00 | 2,220 | 9.00 | 8,100 |
| — .20 | 340 | 1.20 | 945 | 3.20 | 2,400 | 10.00 | 9,100 |
| — .10 | 375 | 1.30 | 1,000 | 3.40 | 2,580 | 11.00 | 10,100 |
| .00 | 410 | 1.40 | 1,055 | 3.60 | 2,760 | 12.00 | 11,100 |
| .10 | 450 | 1.50 | 1,115 | 3.80 | 2,950 | 13.00 | 12,100 |
| .20 | 490 | 1.60 | 1,175 | 4.00 | 3,140 | 14.00 | 13,100 |
| .30 | 530 | 1.70 | 1,240 | 4.20 | 3,330 | 15.00 | 14,100 |
| .40 | 570 | 1.80 | 1,305 | 4.40 | 3,520 | 16.00 | 15,100 |
| .50 | 610 | 1.90 | 1,370 | 4.60 | 3,710 | 17.00 | 16,100 |
| .60 | 655 | 2.00 | 1,440 | 4.80 | 3,900 | 18.00 | 17,100 |
| .70 | 700 | 2.20 | 1,580 | 5.00 | 4,100 | 19.00 | 18,100 |

The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1905–1906. Owing to changing conditions of flow, it cannot be considered as very well defined. Above gage height 4.8 feet, the rating curve is a tangent, the difference being 100 per tenth.

RATING TABLE FOR YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.40 | 470 | 1.60 | 1,075 | 2.80 | 2,040 | 4.00 | 3,140 |
| .50 | 510 | 1.70 | 1,145 | 2.90 | 2,130 | 4.20 | 3,330 |
| .60 | 550 | 1.80 | 1,215 | 3.00 | 2,220 | 4.40 | 3,520 |
| .70 | 590 | 1.90 | 1,285 | 3.10 | 2,310 | 4.60 | 3,710 |
| .80 | 635 | 2.00 | 1,360 | 3.20 | 2,400 | 4.80 | 3,900 |
| .90 | 680 | 2.10 | 1,435 | 3.30 | 2,490 | 5.00 | 4,100 |
| 1.00 | 730 | 2.20 | 1,515 | 3.40 | 2,580 | 6.00 | 5,100 |
| 1.10 | 780 | 2.30 | 1,595 | 3.50 | 2,670 | 7.00 | 6,100 |
| 1.20 | 835 | 2.40 | 1,680 | 3.60 | 2,760 | 8.00 | 7,100 |
| 1.30 | 890 | 2.50 | 1,770 | 3.70 | 2,855 | 9.00 | 8,100 |
| 1.40 | 950 | 2.60 | 1,860 | 3.80 | 2,950 | | |
| 1.50 | 1,010 | 2.70 | 1,950 | 3.90 | 3,045 | | |

The above table is applicable only for open-channel conditions. It is based upon 1 discharge measurement made during 1907 and the form of the 1906 curve. It is not well defined. Above gage height 4.8 feet the rating curve is a tangent, the difference being 100 per tenth.

ESTIMATED MONTHLY DISCHARGE OF YADKIN RIVER AT NORTH WILKESBORO, N. C.

[Drainage area, 498 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| April 10–30 | 3,270 | 1,415 | 2,064 | 4.15 | 3.24 |
| May | 1,415 | 974 | 1,169 | 2.35 | 2.71 |
| June | 5,770 | 890 | 1,417 | 2.85 | 3.18 |
| July | 2,170 | 659 | 916 | 1.84 | 2.12 |
| August | 1,380 | 575 | 815 | 1.64 | 1.89 |
| September | 1,530 | 512 | 647 | 1.30 | 1.45 |
| October | 6,220 | 491 | 770 | 1.55 | 1.79 |
| November | 1,115 | 449 | 568 | 1.14 | 1.27 |
| December | 743 | 365 | 502 | 1.01 | 1.16 |

MONTHLY DISCHARGE OF YADKIN RIVER AT NORTH WILKESBORO, N. C.—*Continued.*

[Drainage area, 498 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| January | 860 | 322 | 532 | 1.07 | 1.23 |
| February | 1,730 | 322 | 742 | 1.49 | 1.61 |
| March | 9,300 | 611 | 1,171 | 2.35 | 2.71 |
| April | 935 | 513 | 602 | 1.21 | 1.35 |
| May | 14,500 | 513 | 1,467 | 2.95 | 3.40 |
| June | 4,375 | 611 | 1,224 | 2.46 | 2.74 |
| July | 7,650 | 513 | 1,032 | 2.07 | 2.39 |
| August | 3,950 | 611 | 1,059 | 2.13 | 2.46 |
| September | 1,770 | 417 | 594 | 1.19 | 1.33 |
| October | 417 | 345 | 381 | .765 | .882 |
| November | 1,060 | 369 | 461 | .926 | 1.03 |
| December | 1,285 | 369 | 506 | 1.02 | 1.18 |
| The year | 14,500 | 322 | 814 | 1.64 | 22.31 |

[Drainage area, 500 square miles.]

| | | | | | |
|---|---|---|---|---|---|
| 1905. | | | | | |
| January | 3,330 | 215 | 720 | 1.44 | 1.66 |
| February | 2,860 | 340 | 929 | 1.86 | 1.94 |
| March | 1,060 | 570 | 740 | 1.48 | 1.71 |
| April | 2,950 | 530 | 772 | 1.54 | 1.72 |
| May | 3,240 | 510 | 1,010 | 2.02 | 2.33 |
| June | 1,720 | 410 | 585 | 1.17 | 1.30 |
| July | 11,600 | 530 | 1,680 | 3.36 | 3.87 |
| August | 3,420 | 530 | 1,200 | 2.40 | 2.77 |
| September | 6,000 | 490 | 819 | 1.64 | 1.83 |
| October | 2,950 | 490 | 608 | 1.22 | 1.41 |
| November | 510 | 450 | 485 | .970 | 1.08 |
| December | 7,200 | 470 | 1,290 | 2.58 | 2.97 |
| The year | 11,600 | 215 | 903 | 1.81 | 24.59 |
| 1906. | | | | | |
| January | 11,400 | 677 | 2,160 | 4.32 | 4.98 |
| February | 1,690 | 840 | 1,020 | 2.04 | 2.12 |
| March | 3,710 | 840 | 1,460 | 2.92 | 3.37 |
| April | 3,330 | 865 | 1,230 | 2.46 | 2.74 |
| May | 3,900 | 677 | 986 | 1.97 | 2.27 |
| June | 6,500 | 677 | 1,840 | 3.68 | 4.11 |
| July | 4,100 | 815 | 1,550 | 3.10 | 3.57 |
| August | 17,100 | 972 | 2,900 | 5.80 | 6.69 |
| September | 5,700 | 1,340 | 2,110 | 4.22 | 4.71 |
| October | 17,000 | 1,720 | 3,270 | 6.54 | 7.54 |
| November | 17,900 | 1,440 | 2,520 | 5.04 | 5.62 |
| December | 6,700 | 1,120 | 1,710 | 3.42 | 3.94 |
| The year | 17,900 | 677 | 1,900 | 3.79 | 51.66 |

NOTE.—Values are rated as follows: 1905 and 1906, fair; discharge above 4,000 second-feet, approximate.

MONTHLY DISCHARGE OF YADKIN RIVER AT NORTH WILKESBORO, N. C., FOR 1907.

[Drainage area, 500 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1907. | | | | | |
| January | 3,710 | 1,080 | 1,480 | 2.96 | 3.41 |
| February | 1,440 | 890 | 1,040 | 2.08 | 2.17 |
| March | 2,310 | 835 | 1,180 | 2.36 | 2.72 |
| April | 3,520 | 862 | 1,320 | 2.64 | 2.94 |
| May | 1,250 | 755 | 945 | 1.89 | 2.18 |
| June | 8,000 | 920 | 1,940 | 3.88 | 4.33 |
| July | 1,820 | 705 | 982 | 1.96 | 2.26 |
| August | 1,080 | 590 | 716 | 1.43 | 1.65 |
| September | 8,500 | 510 | 985 | 1.97 | 2.20 |
| October | 680 | 490 | 546 | 1.09 | 1.26 |
| November | 3,140 | 490 | 778 | 1.56 | 1.74 |
| December | 7,700 | 550 | 1,570 | 3.14 | 3.62 |
| The year | 8,500 | 490 | 1,120 | 2.25 | 30.48 |

ARARAT RIVER NEAR SILOAM, N. C.

Ararat River rises in southwestern Patrick County, Va., flows southward, and empties into the Yadkin near Siloam, N. C.

The station was established as a bench-mark station April 21, 1904. It is located at the Southern Railway bridge, about 1 mile east of Siloam and a short distance above the mouth of the river.

The channel is straight for about 500 feet above and 150 feet below the station. The current is swift. Both banks slope gradually. All water passes beneath the bridge and approaches. The bed of the stream is composed of sand, is free from vegetation, and is somewhat shifting. There is but one channel at all stages. Flood stages will flow around the cribwork pier on each bank, supporting the ends of the iron bridge. High water in Yadkin River will make this site valueless as a gaging station, but it is a good point for low-water measurements. The bridge crosses the stream almost at right angles.

Discharge measurements are made from the downstream side of the single-span bridge, which has a short trestle approach at each end.

The bench mark is the surface of the outer eyebar of the lower chord of the bridge, downstream side, exactly midway between the ends of the bridge, just outside the iron tension rods. Its elevation is 28.00 feet above gage datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF ARARAT RIVER NEAR SILOAM, N. C., IN 1904-1905.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 21 | B. S. Drane | 111 | 169 | 1.64 | 1.08 | 277 |
| June 9 | do | 114 | 217 | 1.41 | 1.63 | 306 |
| Sept. 24 | do | 111 | 210 | .81 | .80 | 170 |
| 1905. | | | | | | |
| Jan. 5 | B. S. Drane | 110 | 224 | 0.93 | 0.85 | 209 |
| Aug. 24 | do | 129 | 269 | 2.25 | 2.38 | 604 |

## FISHER RIVER NEAR CRUTCHFIELD, N. C.

This station was established as a bench-mark station April 20, 1904. It is located about 2 miles east of Crutchfield, N. C., at the Southern Railway bridge, just above the mouth of the river. Discharge measurements are made from the upstream side of the one-span bridge.

Bench mark No. 1 is the upstream edge of the upper surface of the I beam forming the upstream lower chord, at a point 90 feet from the end of the guard rail at right bank. Its elevation is 27 feet above datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF FISHER RIVER NEAR CRUTCHFIELD, N. C., IN 1904.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| Apr. 20 | B. S. Drane | 87 | 265 | 0.59 | 1.40 | 156 |
| Sept. 24 | do | 103 | 320 | .25 | 1.06 | 80 |

## MITCHELL RIVER AT BURCH, N. C.

Mitchell River rises in the northeastern part of Alleghany County, N. C., and flows southeastward into the Yadkin.

The station was established as a bench-mark station April 20, 1904. It is located at the Southern Railway bridge at Burch, a few hundred feet above the mouth of Mitchell River.

Discharge measurements are made from the downstream side of the one-span railway bridge.

The bench mark is the upper edge of the outermost eyebar of the lower chord, downstream side, midway between the ends of the bridge. Its elevation is 27 feet above gage datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF MITCHELL RIVER AT BURCH, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 20 | B. S. Drane | 84.5 | 169 | .57 | 2.07 | 96 |
| Sept. 23 | do | 65 | 150 | .46 | 1.99 | 69 |
| 1905. | | | | | | |
| Apr. 27 | B. S. Drane | 85 | 206 | 0.60 | 2.33 | 125 |

ROARING RIVER AT ROARING RIVER, N. C.

Roaring River rises in the extreme northern part of Wilkes County, N. C., and flows south, east, and south into the Yadkin.

The station was established as a bench-mark station April 20, 1904. It is located at the Southern Railway bridge a short distance above the mouth of Roaring River, at the town of Roaring River.

Discharge measurements are made from the downstream side of the one-span bridge.

The bench mark is the edge of the outermost eyebar of the downstream lower chord, at a point midway between the ends of the bridge opposite the iron tension rods. Its elevation is 27.00 feet above gage datum. No gage-height records are made.

Discharge Measurements of Roaring River at Roaring River, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 20 | B. S. Drane | 62 | 103 | 1.20 | 1.55 | 125 |
| June 9 | ----do | 78 | 105 | 1.70 | 1.93 | 178 |
| Sept. 23 | ----do | 63 | 53 | 1.36 | 1.10 | 72 |
| 1905. | | | | | | |
| Jan. 4 | B. S. Drane | 70 | 78 | 1.02 | 1.22 | 73 |
| Apr. 26 | ----do | 71 | 102 | 1.10 | 1.62 | 113 |
| Aug. 23 | ----do | 80 | 129 | 1.64 | 2.35 | 211 |

MULBERRY RIVER NEAR NORTH WILKESBORO, N. C.

Mulberry River rises on the eastern slope of the Blue Ridge Mountains in northwestern Wilkes County, N. C., and flows southeastward into the Yadkin.

The station was established as a bench-mark station November 7, 1903. It is located at the Southern Railway bridge, about 2 miles east of North Wilkesboro and less than one-half mile above the mouth of Mulberry River.

Discharge measurements are made from the downstream side of the bridge.

The bench mark is the apex of the triangular downstream end of the iron bearing through which pass the iron tension rods midway between the ends of the truss, on the downstream side of the bridge, about 2 feet east of the second bent from the left bank. Its elevation is 24.00 feet above gage datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF MULBERRY RIVER NEAR NORTH WILKESBORO, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 19 | B. S. Drane | 15 | 25 | 1.62 | 1.12 | 41 |
| June 8 | do | 25 | 31 | 1.98 | 1.30 | 61 |
| Sept. 22 | do | 21 | 21 | 1.37 | .91 | 29 |
| 1905. | | | | | | |
| Jan. 4 | B. S. Drane | 22 | 24 | 1.17 | 0.89 | 28 |
| Apr. 26 | do | 19 | 31 | 1.97 | 1.22 | 61 |

REDDIE RIVER AT NORTH WILKESBORO, N. C.

Reddie River rises on the east slope of the Blue Ridge, in western Wilkes County, N. C., flows southeastward, and unites with the Yadkin at Wilkesboro.

The station was established as a bench-mark station April 18, 1904. It is located at the highway bridge just outside the town of North Wilkesboro, about one-half mile above the mouth of Reddie River.

Discharge measurements are made from the downstream side of the single-span covered bridge, the meter being lowered outside the floor.

The bench mark is the upper edge of the lower rail of the downstream guard rail, by the side of a notch, 66 feet from the left bank end. Its elevation is 27.00 feet above gage datum. No gage-height records are made.

DISCHARGE MEASUREMENTS OF REDDIE RIVER AT NORTH WILKESBORO, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 18 | B. S. Drane | 57 | 61 | 1.22 | 1.98 | 75 |
| June 9 | do | 59 | 91 | 1.69 | 2.26 | 153 |
| Sept. 23 | do | 50 | 51 | 1.57 | 1.66 | 80 |
| 1905. | | | | | | |
| Jan. 4 | B. S. Drane | 64 | 57 | 1.44 | 2.40 | 82 |
| Aug. 23 | do | 66 | 132 | 1.97 | 2.73 | 261 |

## CATAWBA RIVER DRAINAGE BASIN.

### DESCRIPTION OF BASIN.

The Catawba River drainage basin of North Carolina is a portion of the large Santee River basin of South and North Carolina. The Santee River is formed in the central part of South Carolina by the junction of Congaree and Wateree rivers, flows southeastward, and enters the Atlantic Ocean about 10 miles north of Cape Roumain. It has a total length of about 180 miles (following the course of the river) and drains an area of about 15,000 square miles. It is a navigable stream for its entire length.

Wateree River, the more northerly of the two parent streams, rises on the eastern slope of the Blue Ridge, in McDowell County, N. C., and flows northeastward and then eastward, then bends abruptly to the southeast and flows in this general direction across the south central part of North Carolina and the north central part of South Carolina to its junction with the Congaree, practically paralleling the course of Yadkin and Pee Dee rivers. This stream, throughout its course in North Carolina and also through that part of its course in South Carolina above the mouth of Wateree Creek, is known as Catawba River. The total length of the stream is about 270 miles in a straight line, and about 450 miles when all the windings are followed.

The drainage basin resembles that of the Yadkin in many respects, the upper portion of the stream flowing between parallel ranges of mountains, from which it receives many tributaries, affording much power. The average width of the valley of the main stream in North Carolina is only from 15 to 20 miles, and the fall in the main stream is considerable. The greater part of the drainage basin is hilly, and the upper portions are mountainous. A number of the tributary streams rise and flow for almost their entire course in high mountains. About 65 per cent of the upper part of the basin is in forest. Linville and John rivers, the principal tributaries in North Carolina, flow in country of this character, and their basins are almost entirely forested.

Broad River rises on the eastern slope of the Blue Ridge near Hickory Nut Gap, in the southwestern part of McDowell County and the northeastern part of Henderson County, N. C., and flows in a general southeasterly direction across a portion of south-central North Carolina and north-central South Carolina to its junction with the Saluda at Columbia. The length of the river in a straight line is about 128 miles, but it is much greater if the course of the river is followed.

### MEASUREMENTS OF STREAM FLOW.

#### CATAWBA RIVER NEAR ROCK HILL, S. C.

This station was established on September 3, 1895, and was discontinued May 31, 1903. It was located at the bridge of the Southern Railway, 3 miles south of Fort Mill, S. C., and about 60 miles below the Catawba Station, now abandoned. A wire gage of the ordinary type is fastened to the upstream guard rail on the upper side, the 2-foot mark on the rod being over the center of the second vertical compression member of the second truss from the south end of the bridge.

The channel of the stream is curved above and below the bridge, which crosses at the head of a bend. The current flows at an angle with the bridge and is swift; the water is shallow at ordinary stages of the stream, and the bottom rough. Altogether, the station was a poor one. The observer was D. A. Morris, a farmer living near the bridge.

DISCHARGE MEASUREMENTS MADE OF CATAWBA RIVER AT ROCK HILL, S. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1895. | | | | | |
| Sept. 23 | C. C. Babb | 806 | 1.66 | 1.58 | 1,340 |
| Oct. 25 | ----do | 852 | 1.73 | 1.51 | 1,477 |
| 1896. | | | | | |
| Apr. 16 | E. W. Myers | 1,159 | 1.54 | 1.90 | 1,787 |
| Aug. 20 | ----do | 924 | 1.63 | 1.78 | 1,508 |
| Sept. 17 | ----do | 979 | 1.36 | 1.53 | 1,336 |
| 1897. | | | | | |
| Feb. 9 | E. W. Myers | 3,178 | 3.05 | 4.50 | 9,711 |
| Apr. 6 | ----do | 10,121 | 4.54 | 12.10 | 46,040 |
| Aug. 15 | ----do | 1,091 | 1.83 | 1.55 | 2,006 |
| Oct. 8 | ----do | 896 | 1.71 | 1.21 | 1,532 |
| Nov. 1 | A. P. Davis | 1,254 | 2.09 | 1.45 | 2,619 |
| 1898. | | | | | |
| Jan. 26 | E. W. Myers | 2,297 | 3.36 | 3.20 | 7,732 |
| Oct. 26 | ----do | 2,033 | 3.49 | 3.50 | 7,108 |
| 1899. | | | | | |
| Feb. 23 | | ------ | ---- | 3.10 | 8,086 |
| June 13 | | ------ | ---- | 2.45 | 6,065 |
| Oct. 3 | | ------ | ---- | 1.60 | 2,104 |
| Dec. 18 | | ------ | ---- | 2.00 | 2,848 |
| 1900. | | | | | |
| Feb. 21 | | ------ | ---- | 2.63 | 3,803 |
| Feb. 22 | | ------ | ---- | 5.28 | 16,791 |
| Apr. 13 | | ------ | ---- | 2.75 | 4,703 |
| Apr. 21 | | ------ | ---- | 9.07 | 31,610 |
| May 21 | | ------ | ---- | 2.42 | 3,703 |
| July 4 | | ------ | ---- | 2.86 | 5,623 |
| Aug. 16 | | ------ | ---- | 1.70 | 1,936 |
| Oct. 26 | | ------ | ---- | 3.30 | 8,843 |
| 1901. | | | | | |
| Apr. 4 | | ------ | ---- | 9.80 | 33,150 |
| Apr. 23 | | ------ | ---- | 4.65 | 10,314 |
| May 23 | | ------ | ---- | 24.15 | 150,783 |
| July 20 | | ------ | ---- | 2.00 | 3,822 |
| Nov. 17 | | ------ | ---- | 2.10 | 4,299 |
| 1902. | | | | | |
| May 13 | J. S. Henderson | 1,623 | 2.47 | 2.20 | 4,013 |
| Aug. 8 | B. S. Drane | 1,255 | 2.46 | 1.70 | 3,086 |
| Aug. 29 | ----do | 1,153 | 2.17 | 1.62 | 2,504 |
| 1903. | | | | | |
| Mar. 24 | E. W. Myers | 16,329 | 5.94 | 17.75 | 96,981 |

Daily Gage Height of Catawba River at Rock Hill, S. C., for 1895.

| Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|
| 1 | | 1.50 | 1.50 | 1.70 |
| 2 | | 1.50 | 1.60 | 1.70 |
| 3 | | 1.50 | 1.70 | 1.70 |
| 4 | | 1.50 | 1.70 | 1.70 |
| 5 | | 1.50 | 1.60 | 1.70 |
| 6 | | 1.50 | 1.60 | 1.60 |
| 7 | | 1.50 | 1.60 | 1.60 |
| 8 | | 1.50 | 2.05 | 1.60 |
| 9 | | 1.50 | 2.10 | 1.60 |
| 10 | | 1.50 | | 1.80 |
| 11 | | 1.50 | | 1.80 |
| 12 | | 1.60 | | 1.70 |
| 13 | | 1.50 | | 1.70 |
| 14 | | 1.50 | | 1.70 |
| 15 | | 1.50 | | 1.70 |
| 16 | | 1.50 | | 1.60 |
| 17 | | 1.50 | 1.70 | 1.60 |
| 18 | | 1.50 | 1.60 | 1.60 |
| 19 | | 1.50 | 1.60 | 1.60 |
| 20 | | 1.50 | 1.60 | 1.60 |
| 21 | | 1.50 | 1.60 | 1.80 |
| 22 | | 1.50 | 1.60 | 3.40 |
| 23 | 1.60 | 1.50 | 1.60 | 3.60 |
| 24 | 1.60 | 1.50 | 1.60 | 2.60 |
| 25 | 1.60 | 1.50 | 1.60 | 2.20 |
| 26 | 1.50 | 1.50 | 1.60 | 2.10 |
| 27 | 1.50 | 1.50 | 1.70 | 2.00 |
| 28 | 1.50 | 1.50 | 2.00 | 2.00 |
| 29 | 1.50 | 1.50 | 1.90 | 2.30 |
| 30 | 1.50 | 1.50 | 1.70 | 2.20 |
| 31 | | 1.50 | | 3.50 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT ROCK HILL, S. C., FOR 1896-1897.

| 1896. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.30 | 2.10 | 2.30 | 2.10 | 1.70 | 1.50 | 1.70 | 2.00 | 1.50 | 3.90 | 1.60 | 5.50 |
| 2 | 2.90 | 2.10 | 2.20 | 2.70 | 1.80 | 1.90 | 1.60 | 1.90 | 1.50 | 2.60 | 1.70 | 4.30 |
| 3 | 2.40 | 3.60 | 2.10 | 5.80 | 3.80 | 2.20 | 2.00 | 2.00 | 1.50 | 2.00 | 1.70 | 3.10 |
| 4 | 2.20 | 4.90 | 2.10 | 3.50 | 4.30 | 2.50 | 2.60 | 1.90 | 1.50 | 1.70 | 1.70 | 2.60 |
| 5 | 2.00 | 3.50 | 2.00 | 2.80 | 2.90 | 3.20 | 2.00 | 1.90 | 2.10 | 1.60 | 3.30 | 2.40 |
| 6 | 1.90 | 6.25 | 2.00 | 2.50 | 2.50 | 2.60 | 4.50 | 2.00 | 2.10 | 1.60 | 5.40 | 2.30 |
| 7 | 1.80 | 6.60 | 2.00 | 2.30 | 2.30 | 2.10 | 5.20 | 1.90 | 2.90 | 1.60 | 3.90 | 2.40 |
| 8 | 1.80 | 4.90 | 2.00 | 2.20 | 2.10 | 1.90 | 7.37 | 1.80 | 2.20 | 1.50 | 2.60 | 2.30 |
| 9 | 2.00 | 5.70 | 1.90 | 2.10 | 2.00 | 1.80 | 12.22 | 1.80 | 1.90 | 1.50 | 2.40 | 2.20 |
| 10 | 1.90 | 5.30 | 1.90 | 2.10 | 2.00 | 2.20 | 15.20 | 1.70 | 1.70 | 1.50 | 2.20 | 2.10 |
| 11 | 1.90 | 4.00 | 1.90 | 2.00 | 1.90 | 1.80 | 10.65 | 1.70 | 1.60 | 1.60 | 2.00 | 2.00 |
| 12 | 1.90 | 3.20 | 2.10 | 2.00 | 1.80 | 1.70 | 7.90 | 1.70 | 1.60 | 1.50 | 1.90 | 1.90 |
| 13 | 1.80 | 2.80 | 2.10 | 2.00 | 1.80 | 1.70 | 6.30 | 1.80 | 1.50 | 1.50 | 2.50 | 1.90 |
| 14 | 1.80 | 2.90 | 2.00 | 1.90 | 1.80 | 1.60 | 4.40 | 1.70 | 2.00 | 1.50 | 2.20 | 1.90 |
| 15 | 1.80 | 2.80 | 2.00 | 1.90 | 1.70 | 1.60 | 3.40 | 2.10 | 1.70 | 1.60 | 2.20 | 1.90 |
| 16 | 1.80 | 2.70 | 1.90 | 1.90 | 1.70 | 1.60 | 3.10 | 2.00 | 1.60 | 1.60 | 2.10 | 3.20 |
| 17 | 2.10 | 2.60 | 1.90 | 1.90 | 1.70 | 1.60 | 2.80 | 1.90 | 1.60 | 1.60 | 1.90 | 3.40 |
| 18 | 2.40 | 2.40 | 1.90 | 1.90 | 1.70 | 1.60 | 2.60 | 2.00 | 1.60 | 1.50 | 1.80 | 2.70 |
| 19 | 2.20 | 2.40 | 1.90 | 1.80 | 1.70 | 1.80 | 2.40 | 2.00 | 1.60 | 1.50 | 1.80 | 2.30 |
| 20 | 2.00 | 2.30 | 2.10 | 1.80 | 1.70 | 2.00 | 2.70 | 1.80 | 1.60 | 1.50 | 1.80 | 2.20 |
| 21 | 2.00 | 2.30 | 2.00 | 1.80 | 1.60 | 2.00 | 2.50 | 1.70 | 1.50 | 1.50 | 1.80 | 2.10 |
| 22 | 1.90 | 2.20 | 2.10 | 1.80 | 1.60 | 1.90 | 2.50 | 1.60 | 1.60 | 1.50 | 1.70 | 2.00 |
| 23 | 2.60 | 2.10 | 2.00 | 1.80 | 1.60 | 2.10 | 2.20 | 1.60 | 1.60 | 1.50 | 1.70 | 2.00 |
| 24 | 3.80 | 2.10 | 2.00 | 1.80 | 1.60 | 1.90 | 2.30 | 1.60 | 1.60 | 1.60 | 1.70 | 1.90 |
| 25 | 4.50 | 2.20 | 2.00 | 1.80 | 2.60 | 1.90 | 2.20 | 1.60 | 1.60 | 1.60 | 1.70 | 1.80 |
| 26 | 3.80 | 2.10 | 2.20 | 1.80 | 1.90 | 2.10 | 2.10 | 1.60 | 1.60 | 1.60 | 1.70 | 1.80 |
| 27 | 2.90 | 2.10 | 2.10 | 1.80 | 1.80 | 2.00 | 2.10 | 1.60 | 1.50 | 1.60 | 1.70 | 1.80 |
| 28 | 2.60 | 2.10 | 2.00 | 1.80 | 1.90 | 2.00 | 2.40 | 1.60 | 1.50 | 1.60 | 1.70 | 1.80 |
| 29 | 2.40 | 2.30 | 2.00 | 1.70 | 1.80 | 2.00 | 2.40 | 1.60 | 1.60 | 1.50 | 1.90 | 1.80 |
| 30 | 2.20 | ------ | 1.90 | 1.70 | 1.70 | 1.90 | 2.30 | 1.50 | 4.30 | 1.50 | 2.20 | 1.80 |
| 31 | 2.20 | ------ | 2.00 | ------ | 1.60 | ------ | 2.10 | 1.50 | ------ | 1.60 | ------ | 1 80 |
| 1897. | | | | | | | | | | | | |
| 1 | 1.80 | 1.85 | 2.60 | 2.50 | 2.70 | 2.00 | 1.70 | 1.45 | 1.40 | 1.20 | 1.40 | 1.85 |
| 2 | 1.75 | 2.70 | 2.50 | 2.40 | 2.90 | 1.90 | 1.60 | 1.45 | 1.40 | 1.20 | 1.50 | 1.60 |
| 3 | 1.70 | 3.30 | 2.40 | 2.40 | 4.40 | 1.90 | 1.50 | 1.50 | 1.40 | 1.20 | 1.55 | 1.70 |
| 4 | 1.70 | 3.30 | 2.30 | 2.60 | 3.20 | 1.80 | 1.50 | 1.60 | 1.40 | 1.20 | 1.95 | 1.80 |
| 5 | 1.70 | 2.70 | 2.30 | 10.30 | 2.70 | 2.60 | 1.60 | 1.60 | 1.40 | 1.20 | 1.70 | 1.85 |
| 6 | 1.70 | 8.50 | 2.30 | 13.30 | 2.50 | 2.40 | 1.80 | 1.90 | 1.30 | 1.20 | 1.60 | 1.90 |
| 7 | 1.90 | 14.75 | 7.70 | 7.00 | 2.40 | 2.20 | 1.60 | 2.20 | 1.30 | 1.20 | 1.50 | 1.80 |
| 8 | 1.80 | 10.20 | 7.60 | 4.00 | 2.30 | 4.30 | 2.30 | 2.45 | 1.30 | 1.20 | 1.50 | 1.70 |
| 9 | 1.80 | 5.00 | 4.50 | 3.50 | 2.30 | 3.60 | 2.30 | 2.10 | 1.30 | 1.20 | 1.50 | 1.70 |
| 10 | 1.70 | 3.60 | 4.80 | 3.30 | 2.20 | 3.00 | 2.20 | 1.90 | 1.30 | 1.20 | 1.50 | 1.60 |
| 11 | 1.70 | 3.20 | 5.70 | 3.50 | 2.20 | 2.70 | 2.00 | 4.70 | 1.25 | 1.30 | 1.50 | 1.60 |
| 12 | 1.70 | 3.50 | 5.30 | 3.00 | 2.20 | 2.30 | 1.80 | 2.50 | 1.20 | 1.65 | 1.45 | 1.60 |
| 13 | 1.70 | 3.70 | 5.60 | 2.90 | 2.40 | 2.30 | 2.40 | 1.80 | 1.20 | 4.80 | 1.40 | 1.60 |
| 14 | 1.70 | 3.50 | 6.40 | 2.80 | 4.20 | 2.00 | 2.30 | 1.65 | 1.20 | 2.90 | 1.40 | 1.55 |
| 15 | 1.70 | 3.20 | 7.10 | 2.70 | 2.90 | 2.00 | 2.10 | 1.60 | 1.20 | 2.00 | 1.40 | 1.60 |
| 16 | 1.80 | 3.00 | 5.10 | 2.80 | 2.45 | 2.00 | 1.70 | 1.90 | 1.20 | 1.65 | 1.40 | 1.70 |
| 17 | 1.80 | 2.90 | 5.00 | 2.80 | 2.25 | 1.90 | 1.55 | 1.70 | 1.20 | 1.50 | 1.40 | 1.90 |
| 18 | 1.90 | 2.70 | 4.50 | 2.60 | 2.20 | 2.00 | 1.70 | 1.60 | 1.20 | 1.45 | 1.40 | 1.75 |
| 19 | 1.90 | 2.50 | 3.70 | 2.50 | 2.20 | 2.00 | 1.60 | 1.70 | 1.20 | 1.40 | 1.40 | 1.70 |
| 20 | 2.00 | 2.50 | 4.20 | 2.45 | 2.10 | 1.90 | 2.00 | 1.60 | 1.20 | 1.45 | 1.40 | 1.65 |
| 21 | 3.60 | 3.30 | 4.10 | 2.40 | 2.20 | 2.20 | 2.35 | 1.50 | 1.50 | 1.50 | 1.40 | 1.70 |
| 22 | 3.70 | 3.00 | 3.60 | 2.35 | 2.00 | 1.90 | 5.25 | 1.60 | 1.30 | 2.30 | 1.40 | 1.90 |
| 23 | 3.10 | 3.00 | 3.20 | 2.30 | 2.00 | 1.70 | 2.60 | 1.60 | 1.25 | 1.80 | 1.40 | 2.00 |
| 24 | 2.50 | 7.80 | 3.00 | 2.30 | 2.00 | 1.65 | 2.00 | 1.80 | 1.25 | 1.60 | 1.40 | 2.00 |
| 25 | 2.30 | 4.80 | 2.90 | 2.30 | 2.10 | 1.60 | 1.70 | 2.00 | 1.50 | 1.50 | 1.40 | 1.90 |
| 26 | 2.10 | 3.50 | 2.70 | 2.20 | 2.10 | 1.90 | 1.60 | 1.70 | 1.60 | 1.50 | 1.40 | 1.85 |
| 27 | 2.00 | 3.10 | 2.60 | 2.30 | 2.00 | 1.70 | 2.30 | 1.60 | 1.40 | 1.50 | 2.40 | 2.10 |
| 28 | 2.00 | 2.70 | 2.50 | 2.40 | 1.90 | 1.70 | 2.00 | 1.50 | 1.35 | 1.45 | 2.70 | 2.20 |
| 29 | 1.90 | ------ | 2.50 | 2.20 | 1.90 | 1.70 | 1.80 | 1.50 | 1.30 | 1.45 | 2.15 | 2.10 |
| 30 | 1.70 | ------ | 2.40 | 2.20 | 2.00 | 1.70 | 1.60 | 1.45 | 1.30 | 1.45 | 2.10 | 1.90 |
| 31 | 1.70 | ------ | 2.55 | ------ | 1.90 | ------ | 1.50 | 1.45 | ------ | 1.40 | ------ | 1.80 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT ROCKHILL, S. C., FOR 1898-1899.

| 1898. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.80 | 2.00 | 1.50 | 4.40 | 1.60 | 1.40 | 1.25 | 1.90 | 1.90 | 2.50 | 2.70 | 2.70 |
| 2 | 1.70 | 1.90 | 1.50 | 3.10 | 1.60 | 1.35 | 1.20 | 1.80 | (*) | 2.30 | 2.60 | 2.60 |
| 3 | 1.65 | 1.80 | 1.50 | 2.50 | 1.50 | 1.25 | 1.10 | 1.80 | (*) | 2.40 | 2.50 | 2.50 |
| 4 | 1.60 | 1.70 | 1.75 | 2.20 | 1.50 | 1.20 | 1.00 | 2.30 | (*) | 3.35 | 2.50 | 2.60 |
| 5 | 1.60 | 1.70 | 2.00 | 2.50 | 1.50 | 1.20 | 1.00 | 1.80 | (*) | 10.00 | 2.50 | 3.80 |
| 6 | 1.60 | 1.70 | 1.80 | 3.80 | 1.50 | 1.10 | 1.00 | 5.60 | (*) | 10.30 | 2.50 | 4.90 |
| 7 | 1.60 | 1.70 | 1.60 | 2.90 | 1.45 | 1.10 | 2.40 | 3.00 | (*) | 9.80 | 3.00 | 3.65 |
| 8 | 1.60 | 1.70 | 1.60 | 2.40 | 1.70 | 1.10 | 2.00 | 2.50 | (*) | 4.80 | 2.60 | 3.10 |
| 9 | 1.60 | 1.70 | 1.55 | 2.15 | 1.60 | 1.10 | 1.65 | 2.40 | (*) | 3.80 | 2.55 | 2.90 |
| 10 | 1.60 | 1.70 | 1.55 | 2.00 | 1.50 | 1.10 | 1.90 | 2.20 | (*) | 3.30 | 2.50 | 2.80 |
| 11 | 1.60 | 1.70 | 1.50 | 2.00 | 1.50 | 1.10 | 1.90 | 2.50 | (*) | 3.20 | 2.50 | 2.60 |
| 12 | 1.65 | 1.70 | 1.50 | 1.90 | 1.50 | 1.10 | 1.55 | 3.00 | (*) | 2.90 | 2.60 | 2.60 |
| 13 | 1.65 | 1.70 | 1.50 | 1.85 | 1.90 | 1.00 | 1.45 | 1.90 | (*) | 2.80 | 2.50 | 2.60 |
| 14 | 1.70 | 1.70 | 1.50 | 1.85 | 1.65 | 1.00 | 1.50 | 3.00 | (*) | 2.80 | 2.60 | 2.50 |
| 15 | 1.70 | 1.65 | 1.70 | 1.90 | 1.50 | 1.10 | 1.60 | 3.00 | (*) | 2.60 | 2.70 | 2.50 |
| 16 | 1.70 | 1.65 | 1.70 | 1.80 | 1.50 | 1.10 | 4.10 | 2.40 | (*) | 2.50 | 2.60 | 2.40 |
| 17 | 1.65 | 1.60 | 1.70 | 1.70 | 1.40 | 3.30 | 2.90 | 2.40 | (*) | 2.40 | 2.60 | 2.40 |
| 18 | 1.60 | 1.60 | 1.70 | 1.70 | 1.40 | 1.60 | 2.90 | 2.20 | (*) | 2.40 | 2.70 | 2.40 |
| 19 | 1.60 | 1.60 | 2.90 | 1.60 | 1.40 | 2.30 | 2.00 | 2.40 | (*) | 2.55 | 3.00 | 2.30 |
| 20 | 1.60 | 1.65 | 2.15 | 1.60 | 1.40 | 2.60 | 1.80 | 6.30 | (*) | 5.00 | 3.10 | 2.30 |
| 21 | 1.60 | 1.70 | 1.90 | 1.60 | 1.30 | 2.10 | 1.60 | 7.51 | (*) | 3.45 | 3.05 | 2.80 |
| 22 | 2.25 | 1.65 | 1.75 | 1.55 | 1.30 | 2.60 | 1.55 | 5.00 | (*) | 5.65 | 2.90 | 2.80 |
| 23 | 2.30 | 1.65 | 1.65 | 1.50 | 1.20 | 1.40 | 1.50 | 2.50 | (*) | 8.40 | 2.80 | 3.80 |
| 24 | 2.05 | 1.60 | 1.60 | 1.80 | 1.30 | 1.30 | 2.35 | 2.25 | (*) | 4.80 | 2.90 | 4.40 |
| 25 | 2.10 | 1.60 | 1.70 | 2.10 | 2.30 | 1.20 | 2.80 | 2.00 | (*) | 3.70 | 3.00 | 3.70 |
| 26 | 3.15 | 1.50 | 1.80 | 2.10 | 2.20 | 1.20 | 2.50 | 2.15 | 3.80 | 3.35 | 2.80 | 3.20 |
| 27 | 4.05 | 1.50 | 1.70 | 1.90 | 1.90 | 1.45 | 2.40 | 2.30 | 3.20 | 3.30 | 2.70 | 2.90 |
| 28 | 3.00 | 1.50 | 1.60 | 1.80 | 1.60 | 1.20 | 2.55 | 2.00 | 2.90 | 3.10 | 2.60 | 2.80 |
| 29 | 2.50 | ..... | 1.60 | 1.70 | 1.55 | 1.40 | 2.10 | 2.00 | 2.80 | 2.90 | 2.50 | 2.70 |
| 30 | 2.25 | ..... | 3.10 | 1.60 | 1.50 | 1.30 | 2.90 | 4.00 | 2.60 | 2.70 | 2.70 | 2.60 |
| 31 | 2.10 | ..... | 6.60 | ..... | 1.40 | ..... | 2.80 | 3.60 | ..... | 2.90 | ..... | 2.60 |
| 1899. | | | | | | | | | | | | |
| 1 | 2.20 | 2.40 | 6.20 | 4.00 | 2.80 | 2.20 | 2.10 | 2.10 | 2.00 | 1.70 | 1.90 | 1.70 |
| 2 | 2.80 | 2.50 | 4.10 | 3.70 | 2.80 | 2.20 | 2.00 | 2.00 | 3.50 | 1.60 | 1.80 | 1.70 |
| 3 | 2.60 | 2.30 | 3.40 | 3.40 | 2.70 | 2.40 | 2.00 | 1.90 | 2.50 | 1.60 | 1.70 | 1.60 |
| 4 | 2.30 | 2.30 | 3.40 | 3.25 | 2.70 | 2.40 | 1.85 | 1.90 | 2.10 | 1.60 | 2.10 | 1.60 |
| 5 | 2.30 | 7.90 | 4.80 | 4.30 | 2.60 | 2.25 | 1.80 | 1.90 | 2.10 | 1.50 | 1.80 | 1.60 |
| 6 | 2.20 | 10.75 | 4.10 | 4.20 | 2.60 | 2.20 | 1.80 | 1.80 | 2.00 | 1.50 | 1.70 | 1.60 |
| 7 | 8.30 | 11.70 | 4.30 | 3.80 | 2.60 | 2.20 | 1.80 | 1.70 | 2.00 | 1.80 | 1.60 | 1.60 |
| 8 | 8.00 | 10.20 | 3.70 | 6.20 | 3.30 | 2.15 | 1.90 | 1.70 | 2.60 | 2.40 | 1.60 | 1.60 |
| 9 | 5.10 | 6.20 | 3.20 | 6.90 | 3.80 | 2.10 | 2.00 | 1.80 | 1.90 | 2.10 | 1.60 | 1.60 |
| 10 | 3.30 | 4.20 | 3.10 | 4.80 | 3.10 | 2.10 | 2.00 | 2.00 | 2.30 | 1.80 | 1.60 | 1.70 |
| 11 | 2.80 | 3.50 | 2.90 | 4.00 | 2.90 | 2.50 | 1.90 | 2.20 | 2.60 | 1.80 | 1.60 | 1.60 |
| 12 | 2.85 | 3.10 | 2.90 | 3.70 | 2.80 | 2.50 | 1.90 | 2.40 | 2.10 | 1.70 | 1.60 | 2.80 |
| 13 | 2.70 | 2.80 | 2.80 | 3.50 | 2.70 | 2.40 | 1.80 | 2.20 | 1.80 | 1.70 | 1.60 | 3.30 |
| 14 | 3.10 | 2.50 | 2.60 | 3.40 | 4.30 | 2.90 | 1.80 | 1.90 | 1.80 | 1.70 | 1.60 | 3.60 |
| 15 | 3.60 | 2.60 | 7.55 | 3.30 | 3.40 | 2.60 | 1.80 | 1.80 | 1.80 | 1.70 | 1.60 | 2.60 |
| 16 | 3.30 | 3.10 | 14.05 | 3.15 | 2.90 | 2.35 | 1.80 | 1.80 | 1.70 | 1.70 | 1.60 | 2.20 |
| 17 | 2.95 | 5.80 | 12.00 | 3.20 | 2.70 | 2.20 | 1.80 | 1.80 | 1.70 | 1.70 | 1.60 | 2.10 |
| 18 | 2.80 | 6.60 | 5.70 | 3.10 | 2.60 | 2.05 | 1.80 | 1.80 | 1.55 | 1.70 | 1.50 | 2.00 |
| 19 | 2.70 | 4.80 | 5.30 | 3.10 | 2.55 | 2.05 | 1.80 | 1.80 | 1.50 | 1.70 | 1.50 | 2.20 |
| 20 | 2.60 | 3.90 | 16.85 | 3.00 | 2.55 | 2.05 | 1.80 | 1.70 | 1.80 | 1.70 | 1.50 | 2.10 |
| 21 | 2.50 | 3.40 | 14.20 | 2.90 | 2.50 | 2.00 | 2.10 | 1.70 | 2.00 | 1.70 | 1.50 | 2.10 |
| 22 | 2.40 | 3.30 | 5.70 | 2.85 | 2.40 | 2.00 | 1.80 | 1.60 | 1.90 | 1.70 | 1.50 | 2.10 |
| 23 | 2.40 | 3.10 | 4.40 | 2.80 | 2.40 | 2.00 | 1.80 | 1.60 | 1.70 | 1.70 | 1.70 | 2.00 |
| 24 | 2.20 | 3.10 | 4.40 | 2.80 | 2.50 | 2.00 | 1.70 | 1.60 | 1.70 | 1.60 | 1.70 | 2.70 |
| 25 | 2.40 | 2.90 | 4.00 | 2.80 | 2.50 | 2.00 | 1.80 | 1.60 | 1.60 | 1.60 | 1.70 | 2.70 |
| 26 | 2.40 | 2.80 | 3.70 | 3.50 | 2.40 | 2.00 | 1.90 | 1.60 | 1.60 | 1.60 | 1.90 | 2.70 |
| 27 | 2.40 | 5.99 | 4.55 | 3.85 | 2.35 | 2.00 | 2.50 | 1.50 | 1.60 | 1.60 | 1.80 | 2.40 |
| 28 | 2.30 | 10.40 | 5.50 | 3.30 | 2.35 | 2.15 | 2.70 | 1.60 | 1.60 | 1.60 | 1.70 | 2.10 |
| 29 | 2.30 | ..... | 6.20 | 3.00 | 2.35 | 2.20 | 2.05 | 2.20 | 1.70 | 1.60 | 1.70 | 2.10 |
| 30 | 2.30 | ..... | 5.30 | 2.90 | 2.30 | 2.10 | 2.00 | 2.10 | 1.70 | 1.60 | 1.70 | 2.10 |
| 31 | 2.20 | ..... | 4.40 | ..... | 2.30 | ..... | 2.20 | 1.90 | ..... | 1.80 | ..... | 2.00 |

*Gage broken.

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT ROCKHILL, S. C., FOR 1900-1901.

| 1900. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.80 | 2.10 | 4.60 | 2.80 | (*) | 2.30 | 3.00 | 2.20 | 1.80 | 1.40 | 1.90 | 2.20 |
| 2 | 1.80 | 2.00 | 11.90 | 2.70 | (*) | 2.30 | 2.90 | 2.10 | 1.80 | 1.40 | 1.80 | 2.00 |
| 3 | 2.70 | 2.00 | 7.90 | 2.60 | (*) | 2.20 | 2.80 | 2.00 | 1.80 | 1.40 | 1.80 | 2.00 |
| 4 | 2.70 | 2.10 | 4.50 | 2.50 | (*) | 2.50 | 2.80 | 1.90 | 1.80 | 1.40 | 3.40 | 3.20 |
| 5 | 2.30 | 2.20 | 3.70 | 2.80 | (*) | 2.50 | 2.50 | 1.90 | 1.70 | 1.40 | 3.00 | 4.20 |
| 6 | 2.20 | 2.40 | 3.30 | 2.80 | (*) | 2.40 | 2.40 | 1.80 | 1.70 | 1.40 | 2.50 | 4.10 |
| 7 | 2.00 | 2.40 | 3.10 | 2.60 | (*) | 2.30 | 2.40 | 1.80 | 1.70 | 1.70 | 2.10 | 2.90 |
| 8 | 2.00 | 2.00 | 3.00 | 2.60 | (*) | 2.30 | 2.30 | 1.80 | 1.70 | 1.70 | 2.00 | 2.40 |
| 9 | 2.00 | 2.00 | 3.80 | 2.60 | (*) | 2.40 | 2.20 | 1.80 | 1.60 | 1.80 | 2.00 | 2.20 |
| 10 | 2.00 | 2.60 | 4.10 | 2.50 | (*) | 2.40 | 2.20 | 1.80 | 1.60 | 1.60 | 1.90 | 2.20 |
| 11 | 1.90 | 3.80 | 3.70 | 2.50 | (*) | 2.40 | 2.20 | 1.70 | 1.50 | 1.60 | 1.80 | 2.20 |
| 12 | 3.20 | 3.80 | 3.40 | 2.20 | 2.40 | 2.30 | 2.10 | 1.70 | 1.50 | 1.60 | 1.70 | 2.20 |
| 13 | 4.70 | 6.30 | 3.20 | 2.70 | 2.30 | 2.20 | 2.10 | 1.70 | 1.50 | 1.60 | 1.70 | 2.00 |
| 14 | 3.50 | 12.30 | 3.10 | 2.60 | 2.30 | 2.20 | 2.10 | 1.70 | 1.50 | 1.50 | 1.70 | 1.90 |
| 15 | 2.80 | 7.50 | 2.90 | 2.50 | 2.30 | 2.60 | 2.10 | 1.70 | 1.60 | 1.50 | 1.70 | 1.90 |
| 16 | 2.50 | 4.30 | 5.80 | 2.50 | 2.30 | 2.55 | 2.10 | 1.70 | 1.60 | 1.50 | 1.70 | 1.90 |
| 17 | 2.40 | 3.40 | 6.70 | 2.50 | 2.25 | 3.90 | 2.10 | 2.00 | 3.20 | 1.50 | 1.70 | 1.90 |
| 18 | 2.20 | 3.00 | 4.50 | 2.40 | 2.30 | 6.75 | 2.10 | 2.00 | 2.70 | 1.50 | 1.70 | 1.80 |
| 19 | 2.00 | 2.90 | 3.60 | 10.00 | 4.60 | 6.30 | 2.10 | 1.90 | 2.10 | 1.40 | 1.70 | 1.80 |
| 20 | 2.90 | 2.60 | 3.30 | (*) | 2.60 | 4.40 | 2.00 | 1.90 | 1.80 | 1.40 | 1.70 | 1.80 |
| 21 | 3.30 | 2.60 | 3.80 | (*) | 2.40 | 3.30 | 1.90 | 1.70 | 1.80 | 1.40 | 1.70 | 4.20 |
| 22 | 3.20 | 4.90 | 3.70 | (*) | 2.20 | 2.90 | 1.90 | 1.60 | 1.70 | 1.35 | 1.70 | 3.80 |
| 23 | 2.70 | 5.40 | 3.30 | (*) | 2.20 | 5.80 | 2.10 | 2.30 | 1.70 | 1.40 | 1.70 | 4.20 |
| 24 | 2.50 | 4.00 | 2.30 | (*) | 2.20 | 6.50 | 2.60 | 2.10 | 1.40 | 7.75 | 1.70 | 2.90 |
| 25 | 2.40 | 3.40 | 2.90 | (*) | 3.40 | 5.00 | 2.60 | 1.80 | 1.40 | 11.30 | 1.70 | 2.80 |
| 26 | 2.40 | 3.30 | 3.10 | (*) | 3.60 | 4.90 | 2.20 | 2.00 | 1.30 | 3.40 | 1.80 | 2.70 |
| 27 | 2.30 | 3.00 | 3.70 | (*) | 2.80 | 4.00 | 2.30 | 1.90 | 1.30 | 2.50 | 6.10 | 2.50 |
| 28 | 2.20 | 2.80 | 3.50 | (*) | 2.60 | 3.50 | 2.50 | 1.80 | 1.30 | 2.20 | 3.90 | 2.30 |
| 29 | 2.10 | ------- | 3.20 | (*) | 2.50 | 3.20 | 2.30 | 1.80 | 1.30 | 2.10 | 2.60 | 2.20 |
| 30 | 2.10 | ------- | 3.10 | (*) | 2.40 | 3.10 | 2.90 | 2.00 | 1.30 | 2.00 | 2.30 | 2.20 |
| 31 | 2.10 | ------- | 3.00 | ------- | 2.30 | ------- | 2.20 | 1.80 | ------- | 2.00 | ------ | 2.60 |
| 1901. | | | | | | | | | | | | |
| 1 | 2.70 | 2.00 | 1.90 | 3.10 | 2.90 | 3.50 | 4.90 | 2.30 | 5.55 | 4.10 | 2.20 | 2.00 |
| 2 | 2.80 | 2.00 | 1.90 | 6.55 | 2.90 | 3.30 | 4.00 | 2.20 | 5.20 | 3.90 | 2.20 | 2.00 |
| 3 | 2.70 | 2.00 | 1.90 | 11.80 | 2.80 | 3.10 | 3.50 | 2.20 | 4.10 | 3.80 | 2.20 | 2.00 |
| 4 | 2.40 | 3.80 | 1.90 | 12.90 | 2.70 | 3.00 | 3.30 | 2.10 | 3.70 | 3.50 | 2.20 | 2.30 |
| 5 | 2.40 | 2.80 | 1.90 | 6.90 | 2.70 | 3.00 | 2.70 | 2.00 | 3.50 | 2.80 | 2.20 | 2.50 |
| 6 | 2.20 | 2.70 | 1.90 | 4.10 | 2.60 | 3.00 | 2.50 | 8.80 | 3.20 | 2.60 | 2.20 | 2.30 |
| 7 | 2.10 | 2.40 | 1.90 | 3.90 | 2.60 | 3.90 | 2.30 | 12.35 | 3.10 | 2.60 | 2.25 | 2.15 |
| 8 | 2.10 | 2.20 | 1.80 | 3.10 | 2.50 | 3.50 | 3.50 | 12.90 | 3.00 | 2.60 | 2.20 | 2.00 |
| 9 | 2.10 | 2.20 | 1.80 | 3.00 | 2.70 | 3.00 | 7.20 | 4.00 | 3.00 | 2.50 | 2.20 | 2.10 |
| 10 | 2.00 | 2.40 | 1.80 | 2.70 | 2.90 | 2.50 | 5.00 | 3.00 | 2.90 | 2.40 | 2.15 | 2.10 |
| 11 | 2.20 | 2.30 | 2.00 | 2.60 | 2 70 | 2.50 | 3.50 | 2.70 | 2.90 | 2.40 | 2.15 | 2.20 |
| 12 | 3.00 | 2.30 | 2.30 | 2.50 | 2.70 | 2.50 | 2.80 | 2.60 | 2.80 | 2.40 | 2.15 | 2.50 |
| 13 | 8.50 | 2.30 | 2.80 | 2.50 | 2.60 | 2.50 | 2.40 | 2.80 | 2.80 | 2.40 | 2.20 | 2.30 |
| 14 | 4.10 | 2.30 | 2.40 | 3.50 | 2.50 | 2.50 | 2.30 | 7.40 | 2.80 | 2.50 | 2.20 | 2.40 |
| 15 | 3.40 | 2.20 | 2.20 | 4.00 | 2.50 | 6.70 | 3.30 | 14.30 | 2.80 | 3.10 | 2.20 | 5.20 |
| 16 | 2.70 | 2.20 | 2.10 | 3.50 | 2.40 | 9.20 | 3.50 | 14.50 | 2.80 | 3.00 | 2.20 | 14.40 |
| 17 | 2.50 | 2.20 | 2.00 | 2.90 | 2.40 | 7.00 | 3.40 | 12.00 | 4.30 | 2.90 | 2.10 | 5.00 |
| 18 | 2.50 | 2.20 | 2.00 | 2.70 | 2.40 | 6.00 | 2.80 | 9.50 | 4.50 | 2.40 | 2.10 | 3.50 |
| 19 | 2.40 | 2.20 | 2.00 | 2.60 | 2.20 | 4.70 | 3.50 | 7.20 | 5.90 | 2.30 | 2.10 | 3.00 |
| 20 | 2.30 | 2.10 | 2.00 | 10.50 | 2 80 | 4.50 | 3.20 | 6.00 | 4.30 | 2.30 | 2.10 | 2.80 |
| 21 | 2.20 | 2.10 | 2.00 | 19.65 | 3.00 | 4.50 | 2.70 | 4.60 | 3.00 | 2.30 | 2.10 | 2.60 |
| 22 | 2.20 | 2.00 | 1.90 | 12.20 | 15.30 | 5.00 | 2.30 | 5.30 | 2.90 | 2.20 | 2.10 | 2.60 |
| 23 | 2.20 | 2.00 | 1.90 | 5.00 | 21.80 | 4.70 | 2.20 | 7.00 | 2.70 | 2.20 | 2.10 | 2.60 |
| 24 | 2.10 | 1.90 | 1.90 | 4.20 | 15.40 | 6.50 | 2.20 | 9.90 | 2.60 | 2.20 | 2.40 | 2.60 |
| 25 | 2.10 | 1.90 | 1.90 | 3.80 | 5.30 | 4.30 | 2.10 | 7.10 | 2.60 | 2.20 | 2.45 | 2.70 |
| 26 | 2.10 | 1.90 | 4.10 | 3.50 | 4.60 | 3.80 | 2.00 | 5.50 | 2.60 | 2.20 | 2.30 | 2.70 |
| 27 | 2.00 | 1.90 | 13.60 | 3.30 | 7.90 | 3.30 | 2.00 | 8.50 | 2.60 | 2.20 | 2.30 | 3.70 |
| 28 | 2.00 | 1.90 | 10.50 | 3.10 | 8.50 | 3.60 | 2.30 | 5.80 | 2.60 | 2.20 | 2.10 | 3.20 |
| 29 | 2.00 | ------- | 4.50 | 3.00 | 5.80 | 3.10 | 2.10 | 5.70 | 3.70 | 2.20 | 2.10 | 9.10 |
| 30 | 2.00 | ------- | 4.00 | 2.90 | 4.50 | 3.50 | 2.00 | 9.50 | 5.40 | 2.20 | 2.10 | 18.65 |
| 31 | 2.00 | ------- | 3.60 | ------- | 3.80 | ------- | 2.00 | 5.60 | ------- | 2.20 | ------ | 17.90 |

*Gage broken; no record.

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1902.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.50 | 4.00 | 15.30 | 4.10 | 2.30 | 2.00 | 2.20 | 2.10 | 1.60 | 1.90 | 1.80 | 4.25 |
| 2 | 4.70 | 9.00 | 11.90 | 3.90 | 2.30 | 2.00 | 2.10 | 2.10 | 1.60 | 2.30 | 1.75 | 2.90 |
| 3 | 3.70 | 6.20 | 6.30 | 3.50 | 2.30 | 2.00 | 2.00 | 2.10 | 1.60 | 2.00 | 1.70 | 5.60 |
| 4 | 3.40 | 4.50 | 5.60 | 3.10 | 2.30 | 2.00 | 2.00 | 1.90 | 2.70 | 1.80 | 1.70 | 5.10 |
| 5 | 3.20 | 3.40 | 4.00 | 3.00 | 2.30 | 1.90 | 1.90 | 1.90 | 2.80 | 1.90 | 1.70 | 4.00 |
| 6 | 2.90 | 3.20 | 4.00 | 3.00 | 2.30 | 1.90 | 2.00 | 1.80 | 2.40 | 3.20 | 1.70 | 3.60 |
| 7 | 2.90 | 3.00 | 4.00 | 2.90 | 2.20 | 2.10 | 1.90 | 1.80 | 1.70 | 3.10 | 2.00 | 3.40 |
| 8 | 2.80 | 3.00 | 3.40 | 3.00 | 2.20 | 1.90 | 1.90 | 1.70 | 1.60 | 2.20 | 2.45 | 2.75 |
| 9 | 2.80 | 2.80 | 3.50 | 3.20 | 2.20 | 2 20 | 1.90 | 1.70 | 3.20 | 1.90 | 2.00 | 2.50 |
| 10 | 2.80 | 2.70 | 3.40 | 3.10 | 2.20 | 2.10 | 2.40 | 1.70 | 5.50 | 1.80 | 1.80 | 2.30 |
| 11 | 2.70 | 2.60 | 3.20 | 2.90 | 2.20 | 2.00 | 2.60 | 1.70 | 3.50 | 1.90 | 1.80 | 2.15 |
| 12 | 2.70 | 2.60 | 3.00 | 2.70 | 2.20 | 1.90 | 2.50 | 2.00 | 2.40 | 2.40 | 1.80 | 2.15 |
| 13 | 2.70 | 2.60 | 3.30 | 2.60 | 2.20 | 1.90 | 2.50 | 2.10 | 1.90 | 2.20 | 1.75 | 2.40 |
| 14 | 2.60 | 2.60 | 3.10 | 2.60 | 2.20 | 1.90 | 2.40 | 6.00 | 1.80 | 2.70 | 1.70 | 2.40 |
| 15 | 2.60 | 2.70 | 3.00 | 2.50 | 2.30 | 2.00 | 2.30 | 3.50 | 1.60 | 2.30 | 1.70 | 2.30 |
| 16 | 2.60 | 2.70 | 3.00 | 2.50 | 2.40 | 6.60 | 2.20 | 2.40 | 1.60 | 2.00 | 1.70 | 2.15 |
| 17 | 2.50 | 2.70 | 3.40 | 2.40 | 2.30 | 16.40 | 2.10 | 1.85 | 1.60 | 1.80 | 1.70 | 2.65 |
| 18 | 2.50 | 2.70 | 5.30 | 2.70 | 2.40 | 7.40 | 2.00 | 1.80 | 1.60 | 1.80 | 6.10 | 3.20 |
| 19 | 2.50 | 2.70 | 3.90 | 2.60 | 2.40 | 4.10 | 1.90 | 1.70 | 1.60 | 1.60 | 2.50 | 2.90 |
| 20 | 2.50 | 2.70 | 3.40 | 2.60 | 2.60 | 2.60 | 1.90 | 1.70 | 1.60 | 1.60 | 2.60 | 2.50 |
| 21 | 2.50 | 2.70 | 3.10 | 2.60 | 2.50 | 2.50 | 1.90 | 1.70 | 1.60 | 1.60 | 2.10 | 2.30 |
| 22 | 3.20 | 3.20 | 3.10 | 2.60 | 2.50 | 2.40 | 1.90 | 1.70 | 1.60 | 1.60 | 1.90 | 3.80 |
| 23 | 2.90 | 4.70 | 3.00 | 2.60 | 2.50 | 2.40 | 2.10 | 1.70 | 1.60 | 1.60 | 1.90 | 3.20 |
| 24 | 2.90 | 4.90 | 2.90 | 2.60 | 2.40 | 2.40 | 1.90 | 1.70 | 1.60 | 1.60 | 1.80 | 3.00 |
| 25 | 2.50 | 5.40 | 2.80 | 2.50 | 2.30 | 2.40 | 1.90 | 1.70 | 1.60 | 1.60 | 1.80 | 2.60 |
| 26 | 2.50 | 5.80 | 2.80 | 2.50 | 2.70 | 2.30 | 2.10 | 1.60 | 1.60 | 1.60 | 2.40 | 2.40 |
| 27 | 2.50 | 6.30 | 2.80 | 2.50 | 2.50 | 2.20 | 1.90 | 1.60 | 1.60 | 2.00 | 2.40 | 2.25 |
| 28 | 2.60 | 7.60 | 2.70 | 2.40 | 2.50 | 2.20 | 1.90 | 1.60 | 1.60 | 3.80 | 2.20 | 2.15 |
| 29 | 2.80 | ------- | 3.80 | 2.40 | 2.40 | 2.20 | 1.90 | 1.60 | 1.60 | 2.70 | 2.10 | 2.10 |
| 30 | 2.90 | ------- | 9.90 | 2.30 | 2.10 | 2.20 | 2.00 | 1.60 | 1.70 | 2.70 | 1.80 | 2.10 |
| 31 | 3.00 | ------- | 6.20 | ------- | 2.00 | ------- | 2.10 | 1.60 | ------- | 2.00 | ------ | 2.30 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1903.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. |
|---|---|---|---|---|---|---|---|
| 1 | 2.20 | 2.40 | 8.87 | 8.00 | 2.80 | 2.80 | 2.40 |
| 2 | 2.10 | 2.30 | 6.50 | 5.35 | 2.75 | 2.80 | 2.20 |
| 3 | 10.00 | 2.20 | 4.20 | 4.40 | 2.70 | 3.20 | 2.20 |
| 4 | 8.50 | 2.40 | 3.50 | 4.10 | 2.70 | 3.20 | 2.15 |
| 5 | 5.70 | 6.15 | 3.20 | 4.20 | 2.70 | 3.00 | 2.15 |
| 6 | 3.90 | 5.20 | 3.10 | 3.90 | 2.70 | 3.30 | 2.70 |
| 7 | 3.20 | 3.50 | 3.00 | 3.50 | 2.70 | 10.45 | 2.95 |
| 8 | 2.90 | 8.37 | 3.50 | 3.20 | 2.60 | 7.20 | 2.40 |
| 9 | 2.60 | 7.80 | 3.55 | 10.15 | 2.60 | 4.60 | 2.40 |
| 10 | 2.50 | 5.10 | 5.40 | 7.90 | 2.60 | 3.40 | 2.20 |
| 11 | 2.30 | 4.10 | 4.30 | 5.10 | 2.55 | 5.50 | 2.10 |
| 12 | 3.10 | 7.02 | 4.90 | 4.10 | 2.50 | 4.40 | 2.00 |
| 13 | 3.00 | 5.90 | 4.80 | 5.80 | 2.50 | 3.50 | 2.15 |
| 14 | 2.70 | 4.15 | 4.80 | 9.35 | 2.50 | 3.00 | 2.30 |
| 15 | 2.40 | 3.40 | 3.50 | 8.70 | 2.50 | 2.80 | 2.40 |
| 16 | 2.40 | 3.20 | 3.25 | 5.70 | 2.50 | 2.60 | 2.20 |
| 17 | 2.35 | 10.25 | 3.10 | 4.40 | 2.50 | 2.50 | 2.00 |
| 18 | 2.30 | 9.70 | 2.95 | 3.85 | 2.40 | 2.50 | 2.00 |
| 19 | 2.20 | 5.40 | 2.85 | 3.60 | 2.40 | 2.45 | 2.00 |
| 20 | 2.20 | 3.80 | 2.80 | 3.55 | 2.35 | 2.40 | 2.00 |
| 21 | 2.30 | 3.35 | 2.70 | 3.50 | 2.30 | 2.70 | 2.00 |
| 22 | 2.50 | 3.15 | 6.45 | 3.60 | 2.30 | 2.40 | 1.95 |
| 23 | 2.65 | 2.90 | 13.30 | 3.35 | 2.30 | 2.90 | 1.90 |
| 24 | 2.50 | 2.80 | 18.00 | 3.20 | 2.30 | 4.20 | 1.90 |
| 25 | 2.40 | 2.75 | 11.40 | 3.10 | 2.25 | 3.00 | 1.90 |
| 26 | 2.30 | 2.65 | 5.70 | 3.10 | 2.25 | 2.50 | 1.85 |
| 27 | 2.25 | 2.60 | 4.10 | 3.30 | 2.25 | 2.80 | 1.80 |
| 28 | 2.40 | 3.80 | 3.80 | 3.10 | 2.20 | 2.60 | 1.80 |
| 29 | 2.50 | ---------- | 3.50 | 2.90 | 2.30 | 2.50 | 1.80 |
| 30 | 2.60 | ---------- | 6.85 | 2.80 | 2.20 | 2.40 | 2.70 |
| 31 | 2.50 | ---------- | 11.30 | ---------- | 2.40 | ---------- | 2.10 |

RATING TABLE FOR CATAWBA RIVER AT ROCKHILL, S. C.

[This table is applicable from September, 1895, to December, 1896.]

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.20 | 1,140 | 4.20 | 8,720 | 7.20 | 21,900 | 10.20 | 36,500 |
| 1.40 | 1,260 | 4.40 | 9,340 | 7.40 | 22,800 | 10.40 | 37,500 |
| 1.60 | 1,400 | 4.60 | 10,150 | 7.60 | 23,700 | 10.60 | 38,500 |
| 1.80 | 1,550 | 4.80 | 11,050 | 7.80 | 24,600 | 10.80 | 39,500 |
| 2.00 | 1,900 | 5.00 | 12,000 | 8.00 | 25,500 | 11.00 | 40,500 |
| 2.20 | 2,520 | 5.20 | 12,900 | 8.20 | 26,500 | 11.20 | 41,500 |
| 2.40 | 3,140 | 5.40 | 13,800 | 8.40 | 27,500 | 11.40 | 42,500 |
| 2.60 | 3,760 | 5.60 | 14,700 | 8.60 | 28,500 | 11.60 | 43,500 |
| 2.80 | 4,380 | 5.80 | 15,600 | 8.80 | 29,500 | 11.80 | 44,500 |
| 3.00 | 5,000 | 6.00 | 16,500 | 9.00 | 30,500 | 12.00 | 45,500 |
| 3.20 | 5,620 | 6.20 | 17,400 | 9.20 | 31,500 | 12.20 | 46,500 |
| 3.40 | 6,240 | 6.40 | 18,300 | 9.40 | 32,500 | 12.40 | 47,500 |
| 3.60 | 6,860 | 6.60 | 19,200 | 9.60 | 33,500 | 12.60 | 48,500 |
| 3.80 | 7,480 | 6.80 | 20,100 | 9.80 | 34,500 | 12.80 | 49,500 |
| 4.00 | 8,100 | 7.00 | 21,000 | 10.00 | 35,500 | 13.00 | 50,500 |

RATING TABLE FOR CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1897.

| Gage Height. | Discharge. | | Gage Height. | Discharge. | | Gage. Height. | Discharge. | Gage Height. | Discharge. |
|---|---|---|---|---|---|---|---|---|---|
| | Jan. 1 to Feb. 6. | Feb. 7 to Dec. 31. | | Jan. 1 to Feb. 6. | Feb. 7 to Dec. 31. | | Feb. 7 to Dec. 31. | | Feb. 7 to Dec. 31. |
| 1.00 | ----- | 1,600 | 2.40 | 2,700 | 3,450 | 5.00 | 9,800 | 9.00 | 25,500 |
| 1.20 | ----- | 1,700 | 2.60 | 3,100 | 3,800 | 5.50 | 11,300 | 10.00 | 31,000 |
| 1.40 | 1,250 | 1,900 | 2.80 | 3,500 | 4,200 | 6.00 | 13,000 | 11.00 | 38,000 |
| 1.60 | 1,450 | 2,200 | 3.00 | 3,900 | 4,600 | 6.50 | 14,750 | 12.00 | 45,300 |
| 1.80 | 1,700 | 2,500 | 3.50 | 5,050 | 5,750 | 7.00 | 16,550 | 13.00 | 52,700 |
| 2.00 | 2,000 | 2,800 | 4.00 | 6,400 | 7,000 | 7.50 | 18,500 | 14.00 | 60,100 |
| 2.20 | 2,350 | 3,100 | 4.50 | 8,050 | 8,375 | 8.00 | 20,500 | 15.00 | 67,500 |

RATING TABLE FOR CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 1,800 | 3.4 | 7,510 | 5.8 | 15,280 | 10.0 | 35,000 |
| 1.2 | 2,100 | 3.6 | 8,100 | 6.0 | 16,000 | 10.5 | 37,500 |
| 1.4 | 2,430 | 3.8 | 8,700 | 6.2 | 16,800 | 11.0 | 40,000 |
| 1.6 | 2,810 | 4.0 | 9,300 | 6.4 | 17,600 | 11.5 | 42,750 |
| 1.8 | 3,240 | 4.2 | 9,900 | 6.6 | 18,400 | 12.0 | 45,500 |
| 2.0 | 3,700 | 4.4 | 10,500 | 6.8 | 19,200 | 12.5 | 49,550 |
| 2.2 | 4,220 | 4.6 | 11,120 | 7.0 | 20,000 | 13.0 | 53,600 |
| 2.4 | 4,740 | 4.8 | 11,760 | 7.5 | 22,500 | 13.5 | 57,700 |
| 2.6 | 5,270 | 5.0 | 12,400 | 8.0 | 25,000 | 14.0 | 61,800 |
| 2.8 | 5,810 | 5.2 | 13,120 | 8.5 | 27,500 | | |
| 3.0 | 6,350 | 5.4 | 13,840 | 9.0 | 30,000 | | |
| 3.2 | 6,930 | 5.6 | 14,560 | 9.5 | 32,500 | | |

RATING TABLE FOR CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1899 AND 1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.4 | 1,550 | 3.4 | 7,516 | 5.4 | 16,356 | 9.5 | 34,478 |
| 1.6 | 1,750 | 3.6 | 8,400 | 5.6 | 17,240 | 10.0 | 36,688 |
| 1.8 | 2,030 | 3.8 | 9,284 | 5.8 | 18,124 | 11.0 | 40,108 |
| 2.0 | 2,390 | 4.0 | 10,168 | 6.0 | 19,008 | 12.0 | 45,228 |
| 2.2 | 2,830 | 4.2 | 11,052 | 6.5 | 21,218 | 13.0 | 49,948 |
| 2.4 | 3,380 | 4.4 | 11,936 | 7.0 | 23,428 | 14.0 | 54,368 |
| 2.6 | 4,060 | 4.6 | 12,820 | 7.5 | 25,638 | 15.0 | 58,788 |
| 2.8 | 4,880 | 4.8 | 13,704 | 8.0 | 27,848 | 16.0 | 62,208 |
| 3.0 | 5,750 | 5.0 | 14,588 | 8.5 | 30,058 | 17.0 | 67,628 |
| 3.2 | 6,632 | 5.2 | 15,472 | 9.0 | 32,268 | | |

RATING TABLE FOR CATAWBA RIVER NEAR ROCKHILL, S. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.8 | 3,505 | 4.6 | 10,100 | 7.4 | 21,300 | 13.5 | 56,500 |
| 2.0 | 3,825 | 4.8 | 10,800 | 7.6 | 22,200 | 14.0 | 60,250 |
| 2.2 | 4,145 | 5.0 | 11,500 | 7.8 | 23,100 | 14.5 | 64,125 |
| 2.4 | 4,465 | 5.2 | 12,200 | 8.0 | 24,000 | 15.0 | 68,000 |
| 2.6 | 4,850 | 5.4 | 12,900 | 8.5 | 26,500 | 15.5 | 72,000 |
| 2.8 | 5,300 | 5.6 | 13,650 | 9.0 | 29,000 | 16.0 | 76,000 |
| 3.0 | 5,750 | 5.8 | 14,450 | 9.5 | 31,500 | 16.5 | 80,250 |
| 3.2 | 6,250 | 6.0 | 15,250 | 10.0 | 34,000 | 17.0 | 84,500 |
| 3.4 | 6,750 | 6.2 | 16,050 | 10.5 | 36,750 | 17.5 | 88,750 |
| 3.6 | 7,250 | 6.4 | 16,850 | 11.0 | 39,500 | 18.0 | 93,000 |
| 3.8 | 7,750 | 6.6 | 17,700 | 11.5 | 42,500 | 19.0 | 102,000 |
| 4.0 | 8,250 | 6.8 | 18,600 | 12.0 | 45,500 | 20.0 | 111,000 |
| 4.2 | 8,850 | 7.0 | 19,500 | 12.5 | 49,000 | 25.0 | 159,250 |
| 4.4 | 9,450 | 7.2 | 20,400 | 13.0 | 52,750 | ---- | ------- |

RATING TABLE FOR CATAWBA RIVER NEAR ROCKHILL, S. C., FROM JANUARY 1, 1902, TO JULY 31, 1903.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.8 | 3,100 | 3.3 | 6,550 | 4.8 | 10,800 | 6.3 | 16,450 |
| 1.9 | 3,325 | 3.4 | 6,800 | 4.9 | 11,150 | 6.4 | 16,850 |
| 2.0 | 3,550 | 3.5 | 7,050 | 5.0 | 11,500 | 6.5 | 17,275 |
| 2.1 | 3,775 | 3.6 | 7,300 | 5.1 | 11,850 | 6.6 | 17,700 |
| 2.2 | 4,000 | 3.7 | 7,550 | 5.2 | 12,200 | 6.7 | 18,150 |
| 2.3 | 4,225 | 3.8 | 7,800 | 5.3 | 12,550 | 6.8 | 18,600 |
| 2.4 | 4,450 | 3.9 | 8,050 | 5.4 | 12,900 | 6.9 | 19,050 |
| 2.5 | 4,675 | 4.0 | 8,300 | 5.5 | 13,275 | 7.0 | 19,500 |
| 2.6 | 4,900 | 4.1 | 8,600 | 5.6 | 13,650 | 7.5 | 21,750 |
| 2.7 | 5,125 | 4.2 | 8,900 | 5.7 | 14,050 | 8.0 | 24,000 |
| 2.8 | 5,350 | 4.3 | 9,200 | 5.8 | 14,450 | 8.5 | 26,500 |
| 2.9 | 5,575 | 4.4 | 9,500 | 5.9 | 14,850 | 9.0 | 29,000 |
| 3.0 | 5,800 | 4.5 | 9,800 | 6.0 | 15,250 | 9.5 | 31,500 |
| 3.1 | 6,050 | 4.6 | 10,100 | 6.1 | 15,650 | 10.0 | 34,000 |
| 3.2 | 6,300 | 4.7 | 10,450 | 6.2 | 16,050 | 10.5 | 36,750 |

Table for 1903 same as 1902. Above 4.6 feet, gage height, 1901 and 1902 rating tables are the same.

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER NEAR ROCKHILL, S. C.

[Drainage area, 2,987 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1895. | | | | | | |
| September 23 to 30 | 1,350 | 1,300 | 1,318 | 20,912 | 0.13 | 0.44 |
| October | 1,400 | 1,300 | 1,364 | 83,869 | 0.53 | 0.46 |
| November 1 to 9, 17 to 30 | 2,237 | 1,400 | 1,546 | 70,518 | 0.44 | 0.52 |
| December | 6,860 | 1,400 | 2,192 | 134,782 | 0.84 | 0.73 |
| 1896. | | | | | | |
| January | 9,700 | 1,550 | 3,062 | 188,275 | 1.19 | 1.03 |
| February | 19,850 | 2,237 | 6,093 | 350,473 | 2.20 | 2.04 |
| March | 2,851 | 1,700 | 2,009 | 123,528 | 0.77 | 0.67 |
| April | 16,040 | 1,470 | 2,645 | 157,389 | 0.99 | 0.89 |
| May | 9,060 | 1,400 | 2,277 | 140,008 | 0.87 | 0.76 |
| June | 5,620 | 1,330 | 2,014 | 119,841 | 0.74 | 0.67 |
| July | *62,500 | 1,400 | 10,215 | 628,095 | 3.95 | 3.42 |
| August | 1,930 | 1,330 | 1,604 | 98,626 | 0.62 | 0.54 |
| September | 9,060 | 1,330 | 1,873 | 111,451 | 0.70 | 0.63 |
| October | 7,790 | 1,330 | 1,670 | 102,684 | 0.64 | 0.56 |
| November | 14,120 | 1,400 | 2,661 | 158,340 | 0.99 | 0.89 |
| December | 14,600 | 1,550 | 3,169 | 194,855 | 1.22 | 1.06 |
| The year | *62,500 | 1,330 | 3,274 | 2,373,565 | 14.88 | 1.10 |
| 1897. | | | | | | |
| January | 5,550 | 1,575 | 2,097 | 128,940 | 0.81 | 0.70 |
| February | 65,650 | 1,775 | 9,277 | 515,220 | 3.24 | 3.11 |
| March | 19,300 | 3,275 | 7,537 | 463,430 | 2.91 | 2.52 |
| April | 54,920 | 3,100 | 7,055 | 419,800 | 2.63 | 2.36 |
| May | 8,100 | 2,650 | 3,571 | 219,575 | 1.38 | 1.20 |
| June | 7,825 | 2,200 | 3,128 | 186,130 | 1.17 | 1.05 |
| July | 10,550 | 2,050 | 2,900 | 178,315 | 1.12 | 0.97 |
| August | 8,925 | 1,975 | 2,587 | 159,070 | 1.00 | 0.87 |
| September | 2,200 | 1,700 | 1,817 | 108,120 | 0.68 | 0.61 |
| October | 9,200 | 1,700 | 2,311 | 142,100 | 0.89 | 0.77 |
| November | 4,000 | 1,900 | 2,186 | 130,075 | 0.81 | 0.73 |
| December | 3,100 | 2,125 | 2,523 | 155,135 | 0.97 | 0.84 |
| The year | 65,650 | 1,575 | 3,916 | 2,806,120 | 17.61 | 1.31 |
| 1898. | | | | | | |
| January | 9,450 | 2,810 | 3,652 | 224,554 | 1.41 | 1.22 |
| February | 3,700 | 2,610 | 2,968 | 164,834 | 1.03 | 0.99 |
| March | 18,400 | 2,610 | 3,674 | 225,907 | 1.42 | 1.23 |
| April | 10,500 | 2,610 | 4,090 | 243,371 | 1.53 | 1.37 |
| May | 4,480 | 2,100 | 2,747 | 168,908 | 1.06 | 0.92 |
| June | 7,220 | 1,800 | 2,650 | 157,686 | 0.99 | 0.89 |
| July | 9,600 | 1,800 | 3,824 | 235,130 | 1.48 | 1.28 |
| August | 22,500 | 3,240 | 6,355 | 390,756 | 2.46 | 2.13 |
| September | ---------- | ---------- | †6,042 | †359,524 | †2.25 | †2.02 |
| October | 36,500 | 4,480 | 10,489 | 644,947 | 4.05 | 3.51 |
| November | 6,640 | 5,000 | 5,523 | 328,641 | 2.06 | 1.85 |
| December | 12,080 | 4,480 | 6,185 | 380,303 | 2.39 | 2.07 |
| The year | 36,500 | 1,800 | 4,850 | 3,524,561 | 22.13 | 1.62 |

*Estimated. †Approximate.

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER NEAR ROCKHILL, S. C.—*Continued.*

[Drainage area, 2,987 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1899. | | | | | | |
| January | 29,174 | 2,830 | 6,144 | 377,780 | 2.06 | 2.37 |
| February | 43,202 | 3,090 | 13,670 | 659,193 | 4.58 | 4.76 |
| March | 66,965 | 4,060 | 17,486 | 1,075,172 | 5.85 | 6.74 |
| April | 22,986 | 4,880 | 8,505 | 506,083 | 2.85 | 3.17 |
| May | 11,494 | 3,090 | 4,702 | 289,115 | 1.57 | 1.81 |
| June | 5,310 | 2,390 | 2,916 | 173,514 | 0.98 | 1.09 |
| July | 4,460 | 1,880 | 2,317 | 142,467 | 0.78 | 0.90 |
| August | 3,380 | 1,640 | 2,152 | 132,321 | 0.72 | 0.83 |
| September | 7,958 | 1,640 | 2,479 | 147,511 | 0.83 | 0.92 |
| October | 3,380 | 1,640 | 1,914 | 117,687 | 0.64 | 0.74 |
| November | 2,600 | 1,640 | 1,853 | 110,261 | 0.62 | 0.69 |
| December | 8,400 | 1,750 | 2,963 | 182,188 | 0.99 | 1.14 |
| The year | 66,965 | 1,640 | 5,592 | 4,013,292 | 1.87 | 25.16 |
| 1900. | | | | | | |
| January | 13,262 | 2,030 | 3,979 | 244,659 | 1.33 | 1.53 |
| February | 46,854 | 2,390 | 8,707 | 483,562 | 2.91 | 3.03 |
| March | 45,086 | 3,090 | 10,425 | 641,008 | 3.49 | 4.02 |
| April 1 to 19 | | | 5,734 | 216,091 | 1.92 | 1.36 |
| May 12 to 31 | | | 4,278 | 263,044 | 1.43 | 1.65 |
| June | 22,323 | 2,830 | 7,617 | 453,243 | 2.55 | 2.84 |
| July | 5,750 | 2,200 | 3,291 | 202,356 | 1.10 | 1.27 |
| August | 3,090 | 1,750 | 2,169 | 133,367 | 0.73 | 0.84 |
| September | 6,632 | 1,460 | 2,037 | 121,210 | 0.68 | 0.76 |
| October | 42,434 | 1,505 | 4,220 | 259,478 | 1.41 | 1.63 |
| November | 19,450 | 1,880 | 3,317 | 197,375 | 1.11 | 1.24 |
| December | 11,052 | 2,030 | 4,379 | 269,254 | 1.47 | 1.69 |
| 1901. | | | | | | |
| January | 26,500 | 3,825 | 5,245 | | 1.76 | 2.03 |
| February | 7,750 | 3,665 | 4,240 | | 1.42 | 1.48 |
| March | 57,250 | 3,505 | 7,219 | | 2.42 | 2.79 |
| April | 107,850 | 4,625 | 15,812 | | 5.29 | 5.90 |
| May | 127,850 | 4,145 | 14,302 | | 4.79 | 5.52 |
| June | 30,000 | 4,625 | 9,211 | | 3.08 | 3.44 |
| July | 20,400 | 3,825 | 6,159 | | 2.06 | 2.37 |
| August | 64,125 | 3,825 | 18,983 | | 6.36 | 7.34 |
| September | 14,850 | 4,850 | 7,130 | | 2.39 | 2.67 |
| October | 8,550 | 4,145 | 4,980 | | 1.67 | 1.93 |
| November | 4,545 | 3,985 | 4,121 | | 1.38 | 1.54 |
| December | 98,850 | 3,825 | 13,775 | | 4.61 | 5.31 |
| The year | 127,850 | 3,505 | 9,265 | | 3.10 | 42.32 |

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER AT ROCKHILL, S. C.—*Continued.*

[Drainage area, 2,987 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1902. | | | | | |
| January | 21,750 | 4,675 | 6,019 | 2.02 | 2.33 |
| February | 29,000 | 4,900 | 8,846 | 2.96 | 3.08 |
| March | 70,400 | 5,125 | 11,724 | 3.93 | 4.53 |
| April | 8,600 | 4,225 | 5,368 | 1.80 | 2.01 |
| May | 5,125 | 3,550 | 4,290 | 1.44 | 1.66 |
| June | 79,400 | 3,325 | 7,580 | 2.54 | 2.93 |
| July | 4,900 | 3,325 | 3,717 | 1.24 | 1.43 |
| August | 15,250 | 2,700 | 3,634 | 1.22 | 1.41 |
| September | 13,275 | 2,700 | 3,651 | 1.22 | 1.36 |
| October | 7,800 | 2,700 | 3,804 | 1.27 | 1.46 |
| November | 15,650 | 2,900 | 3,830 | 1.28 | 1.43 |
| December | 13,650 | 3,775 | 5,686 | 1.90 | 2.19 |
| The year | 79,400 | 2,700 | 5,512 | 1.90 | 25.82 |
| 1903. | | | | | |
| January | 34,000 | 3,775 | 6,728 | 2.25 | 2.59 |
| February | 35,375 | 4,000 | 11,183 | 3.74 | 3.89 |
| March | 93,000 | 5,125 | 15,952 | 5.34 | 6.16 |
| April | 34,825 | 5,350 | 11,518 | 3.86 | 4.31 |
| May | 5,350 | 4,000 | 4,610 | 1.54 | 1.78 |
| June | 36,470 | 4,450 | 7,585 | 2.54 | 2.83 |
| July | 5,687 | 3,100 | 3,883 | 1.30 | 1.50 |

CATAWBA RIVER AT CATAWBA, N. C.

This station was originally established in July, 1896, but was abandoned December 31, 1899. On June 13, 1900, it was re-established as a temporary station to assist in the study of the hydrography of the southern Appalachian region. The measurements are made from the Southern Railway bridge, about one-half mile from Catawba, N. C. The river is straight above and below the bridge; the current is swift and evenly distributed across the stream. The channel is obstructed by three piers. At time of highest water the west bank overflows slightly and the sandy bed cuts out in places. Discharge measurements were made from the plank walk underneath the bridge. The railway bridge here is a deck bridge, and the wire gage was located on a footway which was laid along the lower system of bracing.

The station was again abandoned in April, 1902, as the section had been so badly injured by floods and by repairs to the bridge that it was almost worthless as a point of measurement.

DISCHARGE MEASUREMENTS OF CATAWBA RIVER AT CATAWBA, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1896. | | | | | |
| June 30 | E. W. Myers | 938 | 1.11 | 2.25 | 1,044 |
| July 4 | do | 1,238 | 1.83 | 3.03 | 2,266 |
| Aug. 30 | do | 743 | 0.98 | 1.45 | 732 |
| Sept. 13 | do | 1,059 | 1.37 | 1.94 | 1,458 |
| 1897. | | | | | |
| Feb. 8 | E. W. Myers | 2,915 | 3.33 | 5.52 | 9,711 |
| Aug. 3 | do | 975 | 1.39 | 1.90 | 1,358 |
| Oct. 5 | do | 825 | 0.93 | 1.60 | 775 |
| Oct. 26 | A. P. Davis | 1,098 | 1.16 | 1.82 | 1,279 |
| 1898. | | | | | |
| Jan. 14 | E. W. Myers | 1,072 | 1.14 | 2.01 | 1,228 |

| Date. | Hydrographer. | Gage Height (Feet). | Discharge. (Second-feet). |
|---|---|---|---|
| 1899. | | | |
| Feb. 24 | | 3.26 | 3,598 |
| Feb. 24 | | 3.28 | 3,690 |
| June 10 | | 2.94 | 2,820 |
| Oct. 9 | | 2.36 | 1,716 |
| Nov. 23 | | 2.20 | 1,118 |
| Dec. 16 | | 2.66 | 2,153 |
| 1900. | | | |
| July 3 | | 3.45 | 3,372 |
| Aug. 14 | | 2.10 | 914 |
| Nov. 7 | | 2.95 | 2,083 |
| Dec. 18 | | 2.59 | 2,139 |
| 1901. | | | |
| Mar 29 | | 5.83 | 5,640 |
| Apr. 27 | | 4.37 | 4,354 |
| July 25 | | 2.95 | 2,805 |
| Nov. 15 | | 2.20 | 2,398 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C., FOR 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ..... | 2.25 | 1.65 | 2.45 | 1.68 | 5.58 | 17 | 2.98 | 2.08 | 1.82 | 1.48 | 1.92 | 3.28 |
| 2 | ..... | 2.25 | 1.85 | 2.25 | 1.65 | 5.32 | 18 | 2.92 | 1.88 | 1.62 | 1.48 | 1.92 | 2.95 |
| 3 | ..... | 2.22 | 1.48 | 1.92 | 1.58 | 3.32 | 19 | 2.78 | 1.82 | 1.52 | 1.48 | 1.92 | 2.95 |
| 4 | 3.05 | 2.28 | 1.45 | 1.65 | 1.88 | 2.65 | 20 | 2.75 | 1.68 | 1.58 | 1.48 | 1.92 | 2.42 |
| 5 | 2.95 | 2.15 | 3.32 | 1.52 | 7.38 | 2.65 | 21 | 2.62 | 1.68 | 1.52 | 1.58 | 1.92 | 2.22 |
| 6 | 4.32 | 2.05 | 2.32 | 1.58 | 3.92 | 2.32 | 22 | 2.72 | 1.62 | 1.55 | 1.50 | 1.88 | 2.05 |
| 7 | 3.82 | 1.98 | 2.32 | 1.58 | 3.35 | 2.32 | 23 | 2.72 | 1.65 | 1.52 | 1.52 | 1.85 | 2.00 |
| 8 | 5.75 | 1.92 | 1.72 | 1.55 | 2.32 | 2.18 | 24 | 2.62 | 1.68 | 1.52 | 1.58 | 1.85 | 2.12 |
| 9 | 5.00 | 1.92 | 1.62 | 1.52 | 2.12 | 2.12 | 25 | 2.52 | 1.65 | 1.52 | 1.58 | 1.78 | 1.98 |
| 10 | 7.72 | 1.95 | 1.52 | 1.52 | 1.95 | 2.10 | 26 | 2.48 | 1.62 | 1.48 | 1.52 | 1.75 | 1.95 |
| 11 | 7.48 | 2.02 | 1.52 | 1.52 | 1.88 | 1.98 | 27 | 2.42 | 1.62 | 1.48 | 1.52 | 1.72 | 1.85 |
| 12 | 5.95 | 1.98 | 1.72 | 1.55 | 1.88 | 1.98 | 28 | 2.92 | 1.52 | 1.52 | 1.52 | 1.72 | 1.90 |
| 13 | 5.25 | 1.92 | 1.95 | 1.55 | 1.85 | 1.98 | 29 | 2.48 | 1.52 | 1.55 | 1.55 | 2.98 | 1.90 |
| 14 | 4.38 | 1.88 | 1.68 | 1.68 | 1.82 | 1.95 | 30 | 2.35 | 1.65 | 4.02 | 1.55 | 7.42 | 1.90 |
| 15 | 3.58 | 2.02 | 1.62 | 1.62 | 1.92 | 3.78 | 31 | 2.28 | 1.85 | ..... | 1.68 | ..... | 1.90 |
| 16 | 3.32 | 2.15 | 1.62 | 1.52 | 1.92 | 3.68 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.82 | 2.25 | 2.75 | 2.85 | 6.00 | 2.15 | 2.00 | 1.95 | 1.70 | 1.60 | 2.00 | 2.15 |
| 2 | 1.85 | 4.00 | 2.45 | 2.90 | 4.00 | 2.10 | 2.00 | 1.85 | 1.70 | 1.60 | 3.00 | 2.10 |
| 3 | 1.88 | 3.65 | 2.35 | 4.00 | 3.90 | 2.05 | 2.00 | 1.80 | 1.65 | 1.60 | 2.50 | 2.05 |
| 4 | 1.82 | 3.10 | 2.30 | 4.25 | 3.45 | 2.00 | 2.00 | 2.30 | 1.65 | 1.60 | 2.00 | 2.05 |
| 5 | 2.22 | 2.60 | 2.25 | 16.00 | 3.20 | 2.75 | 2.05 | 2.90 | 1.70 | 1.60 | 1.90 | 2.00 |
| 6 | 2.00 | 15.90 | 8.27 | 8.20 | 2.90 | 2.50 | 2.30 | 3.00 | 1.70 | 1.60 | 1.85 | 2.00 |
| 7 | 1.95 | 9.62 | 4.50 | 5.75 | 2.80 | 2.90 | 2.20 | 2.60 | 1.70 | 1.60 | 1.85 | 1.95 |
| 8 | 1.90 | 5.82 | 2.90 | 3.90 | 2.70 | 3.40 | 3.30 | 2.50 | 1.70 | 1.60 | 1.85 | 1.90 |
| 9 | 1.90 | 3.90 | 5.50 | 4.00 | 2.70 | 3.40 | 2.80 | 2.60 | 1.70 | 1.60 | 1.75 | 1.90 |
| 10 | 1.95 | 3.60 | 6.00 | 3.80 | 2.75 | 2.90 | 2.50 | 2.50 | 1.70 | 1.70 | 1.75 | 1.90 |
| 11 | 1.95 | 3.40 | 5.50 | 3.60 | 2.80 | 2.65 | 2.30 | 2.40 | 1.70 | 3.00 | 1.70 | 1.90 |
| 12 | 1.95 | 4.65 | 5.00 | 3.25 | 2.80 | 2.40 | 2.25 | 2.25 | 1.70 | 8.00 | 1.70 | 1.90 |
| 13 | 1.95 | 4.10 | 6.20 | 3.02 | 4.20 | 2.35 | 2.40 | 2.10 | 1.70 | 4.00 | 1.70 | 1.85 |
| 14 | 1.95 | 3.50 | 6.00 | 3.00 | 3.30 | 2.30 | 2.30 | 2.00 | 1.70 | 2.50 | 1.70 | 1.85 |
| 15 | 1.95 | 3.40 | 5.90 | 3.05 | 2.90 | 2.25 | 2.25 | 2.00 | 1.70 | 2.00 | 1.70 | 1.85 |
| 16 | 2.00 | 4.20 | 5.80 | 3.02 | 2.50 | 2.20 | 2.25 | 1.90 | 1.70 | 1.90 | 1.70 | 1.85 |
| 17 | 2.00 | 3.80 | 5.50 | 3.00 | 2.45 | 2.35 | 2.30 | 1.85 | 1.70 | 1.90 | 1.70 | 1.85 |
| 18 | 2.20 | 7.80 | 4.40 | 2.95 | 2.45 | 2.40 | 2.30 | 1.80 | 1.70 | 2.50 | 1.70 | 1.85 |
| 19 | 2.00 | 2.75 | 4.00 | 2.85 | 2.40 | 2.50 | 2.25 | 1.80 | 1.70 | 2.40 | 1.70 | 1.85 |
| 20 | 2.20 | 2.85 | 4.75 | 2.85 | 2.40 | 2.30 | 2.30 | 1.80 | 1.70 | 2.25 | 1.70 | 1.90 |
| 21 | 4.45 | 3.20 | 4.30 | 2.80 | 2.40 | 2.20 | 2.90 | 1.80 | 1.70 | 2.00 | 1.70 | 2.50 |
| 22 | 3.80 | 3.10 | 3.70 | 2.82 | 2.30 | 2.15 | 2.75 | 1.75 | 1.80 | 1.90 | 1.70 | 2.50 |
| 23 | 3.25 | 10.10 | 3.40 | 2.80 | 2.25 | 2.10 | 2.75 | 1.75 | 2.10 | 1.80 | 1.70 | 2.40 |
| 24 | 2.45 | 7.60 | 3.20 | 2.78 | 2.20 | 2.10 | 2.80 | 1.75 | 2.05 | 1.75 | 1.70 | 2.30 |
| 25 | 2.30 | 4.25 | 3.00 | 2.75 | 2.20 | 2.10 | 2.75 | 1.75 | 2.00 | 1.75 | 1.70 | 2.25 |
| 26 | 2.20 | 3.60 | 2.95 | 2.75 | 2.50 | 2.05 | 2.60 | 1.70 | 2.00 | 1.80 | 2.50 | 2.25 |
| 27 | 2.15 | 3.05 | 2.85 | 2.75 | 2.30 | 2.05 | 2.70 | 1.70 | 1.95 | 1.80 | 3.00 | 2.20 |
| 28 | 2.00 | 2.90 | 2.80 | 2.75 | 2.25 | 2.00 | 2.60 | 1.70 | 1.90 | 1.80 | 2.50 | 2.20 |
| 29 | 1.85 | ..... | 2.82 | 2.80 | 2.20 | 2.00 | 2.50 | 1.70 | 1.80 | 1.80 | 2.25 | 2.15 |
| 30 | 2.50 | ..... | 2.85 | 3.90 | 2.20 | 2.00 | 2.35 | 1.70 | 1.70 | 1.75 | 2.20 | 2.15 |
| 31 | 2.35 | ..... | 2.85 | ..... | 2.15 | ..... | 2.15 | 1.70 | ..... | 1.70 | ..... | 2.00 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C., FOR 1898-1899.

| 1898. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 2.00 | 2.20 | 1.95 | 3.30 | 2.10 | 1.90 | 1.80 | 3.45 | 2.90 | 3.70 | 3.10 | 2.60 |
| 2 | 2.00 | 2.10 | 1.95 | 3.00 | 2.10 | 1.90 | 1.80 | 3.40 | 2.60 | 3.00 | 2.95 | 2.60 |
| 3 | 2.00 | 2.05 | 1.90 | 2.60 | 2.10 | 1.80 | 1.80 | 3.00 | 3.30 | 3.50 | 2.80 | 2.60 |
| 4 | 1.95 | 2.00 | 1.90 | 2.40 | 2.05 | 1.80 | 1.80 | 2.75 | 5.50 | 9.70 | 2.80 | 4.50 |
| 5 | 1.90 | 2.00 | 1.90 | 3.00 | 2.25 | 1.80 | 2.00 | 9.65 | 5.65 | 11.50 | 2.28 | 5.60 |
| 6 | 1.90 | 2.00 | 1.90 | 2.90 | 2.60 | 1.80 | 2.50 | 4.30 | 4.35 | 7.20 | 2.75 | 3.90 |
| 7 | 2.00 | 2.00 | 1.90 | 2.60 | 2.50 | 1.80 | 2.35 | 4.00 | 4.90 | 6.10 | 2.70 | 3.40 |
| 8 | 2.05 | 2.00 | 1.90 | 2.30 | 2.35 | 1.80 | 2.50 | 3.50 | 3.90 | 5.00 | 2.65 | 3.00 |
| 9 | 2.00 | 2.00 | 1.90 | 2.20 | 2.25 | 1.75 | 2.80 | 3.55 | 3.60 | 4.10 | 2.60 | 2.90 |
| 10 | 1.95 | 2.00 | 1.90 | 2.15 | 2.15 | 1.75 | 2.35 | 3.70 | 3.15 | 3.80 | 2.60 | 2.85 |
| 11 | 1.95 | 2.00 | 1.90 | 2.15 | 2.05 | 1.75 | 2.00 | 4.60 | 2.60 | 3.60 | 2.60 | 2.80 |
| 12 | 2.00 | 2.00 | 1.90 | 2.10 | 2.00 | 1.75 | 2.00 | 6.50 | 2.40 | 3.40 | 2.60 | 2.70 |
| 13 | 2.00 | 2.00 | 1.90 | 2.10 | 2.00 | 1.70 | 1.85 | 4.80 | 2.35 | 3.20 | 2.60 | 2.70 |
| 14 | 2.00 | 2.00 | 1.90 | 2.10 | 1.95 | 1.70 | 4.20 | 3.50 | 2.30 | 3.10 | 2.70 | 2.65 |
| 15 | 2.00 | 2.00 | 1.90 | 2.10 | 1.90 | 1.90 | 7.00 | 3.20 | 2.30 | 2.95 | 2.75 | 2.50 |
| 16 | 1.95 | 1.95 | 1.90 | 2.40 | 1.90 | 2.00 | 4.10 | 3.10 | 2.20 | 2.80 | 2.75 | 2.50 |
| 17 | 1.95 | 1.95 | 2.00 | 2.30 | 1.90 | 3.50 | 4.00 | 2.90 | 2.10 | 2.80 | 2.80 | 2.50 |
| 18 | 1.95 | 1.95 | 2.10 | 2.25 | 1.90 | 2.80 | 3.70 | 2.90 | 2.10 | 3.40 | 3.00 | 2.50 |
| 19 | 1.95 | 1.95 | 2.05 | 2.20 | 1.85 | 2.00 | 3.10 | 4.30 | 2.10 | 3.20 | 3.30 | 2.50 |
| 20 | 2.25 | 1.95 | 2.05 | 2.20 | 1.85 | 1.95 | 2.50 | 4.30 | 2.10 | 3.50 | 3.20 | 2.50 |
| 21 | 3.00 | 2.00 | 2.00 | 2.20 | 1.85 | 1.95 | 2.40 | 4.00 | 2.05 | 8.30 | 3.00 | 2.90 |
| 22 | 3.00 | 2.00 | 2.00 | 2.20 | 1.85 | 1.80 | 2.40 | 3.20 | 2.40 | 7.45 | 2.80 | 3.00 |
| 23 | 2.75 | 2.00 | 2.00 | 2.30 | 1.85 | 1.80 | 3.00 | 3.00 | 19.95 | 6.60 | 2.95 | 3.15 |
| 24 | 2.50 | 1.95 | 2.00 | 2.25 | 3.50 | 1.80 | 4.50 | 2.50 | 11.60 | 5.00 | 3.10 | 3.25 |
| 25 | 3.00 | 1.95 | 1.95 | 2.20 | 2.50 | 1.80 | 3.90 | 2.50 | 5.70 | 4.10 | 3.00 | 3.10 |
| 26 | 5.50 | 1.95 | 1.95 | 2.15 | 2.20 | 1.80 | 3.30 | 2.60 | 5.40 | 3.80 | 2.85 | 3.00 |
| 27 | 3.40 | 1.95 | 2.90 | 2.10 | 2.00 | 1.80 | 2.80 | 2.55 | 4.90 | 3.50 | 2.70 | 3.00 |
| 28 | 3.00 | 1.95 | 3.00 | 2.10 | 1.90 | 1.85 | 3.40 | 2.45 | 4.10 | 3.30 | 2.70 | 2.90 |
| 29 | 2.75 | ------- | 3.50 | 2.10 | 1.95 | 1.80 | 3.50 | 5.60 | 3.40 | 3.30 | 2.70 | 2.85 |
| 30 | 2.40 | ------- | 7.50 | 2.10 | 1.95 | 1.80 | 3.10 | 3.30 | 3.30 | 3.30 | 2.65 | 2.85 |
| 31 | 2.30 | ------- | 5.50 | ------- | 1.95 | ------- | 3.50 | 3.10 | ------- | 3.20 | ------ | 2.90 |
| 1899. | | | | | | | | | | | | |
| 1 | 3.50 | 2.70 | 5.45 | 4.65 | 3.40 | 2.95 | 2.40 | 2.20 | 2.40 | 1.95 | 2.10 | 2.10 |
| 2 | 3.10 | 2.70 | 4.30 | 4.40 | 3.40 | 2.00 | 2.35 | 2.25 | 2.90 | 1.95 | 2.15 | 2.15 |
| 3 | 3.00 | 2.80 | 4.00 | 3.90 | 3.35 | 2.90 | 2.30 | 2.20 | 2.75 | 1.95 | 2.10 | 2.15 |
| 4 | 2.80 | 10.00 | 4.00 | 3.95 | 3.30 | 2.80 | 2.30 | 2.15 | 2.60 | 1.90 | 2.15 | 2.15 |
| 5 | 2.80 | 8.60 | 7.40 | 4.60 | 3.30 | 2.75 | 2.35 | 2.10 | 2.40 | 1.90 | 2.20 | 2.15 |
| 6 | 5.20 | 9.60 | 5.90 | 4.40 | 3.25 | 2.70 | 2.40 | 2.10 | 2.20 | 2.00 | 2.18 | 2.15 |
| 7 | 8.00 | 9.10 | 4.30 | 5.70 | 4.90 | 2.65 | 2.50 | 2.30 | 2.20 | 2.10 | 2.18 | 2.10 |
| 8 | 4.70 | 6.50 | 4.15 | 8.90 | 4.70 | 2.60 | 2.60 | 2.40 | 2.25 | 2.20 | 2.15 | 2.10 |
| 9 | 4.40 | 5.60 | 4.00 | 5.75 | 4.25 | 3.35 | 2.50 | 2.35 | 2.30 | 2.36 | 2.10 | 2.10 |
| 10 | 4.00 | 4.30 | 3.80 | 5.10 | 3.85 | 2.92 | 2.40 | 2.80 | 2.50 | 2.30 | 2.10 | 2.10 |
| 11 | 3.90 | 3.60 | 3.70 | 4.50 | 3.60 | 2.90 | 2.40 | 2.60 | 2.40 | 2.25 | 2.10 | 2.15 |
| 12 | 3.90 | 3.30 | 3.60 | 4.30 | 3.75 | 3.35 | 2.35 | 2.40 | 2.20 | 2.20 | 2.10 | 6.50 |
| 13 | 3.80 | 2.90 | 3.55 | 4.10 | 5.10 | 3.25 | 2.30 | 2.40 | 2.00 | 2.18 | 2.10 | 6.10 |
| 14 | 3.50 | 2.90 | 3.50 | 4.00 | 3.80 | 3.15 | 2.20 | 2.00 | 2.00 | 2.15 | 2.10 | 3.30 |
| 15 | 3.80 | 2.90 | 16.50 | 3.90 | 3.60 | 3.05 | 2.20 | 2.10 | 2.00 | 2.10 | 2.10 | 2.90 |
| 16 | 3.60 | 4.20 | 11.10 | 3.80 | 3.40 | 2.95 | 2.20 | 2.00 | 2.00 | 2.05 | 2.10 | 2.60 |
| 17 | 3.30 | 7.30 | 6.70 | 3.70 | 3.20 | 2.90 | 2.20 | 2.00 | 2.00 | 2.05 | 2.05 | 2.55 |
| 18 | 3.10 | 5.00 | 6.80 | 3.60 | 3.05 | 2.90 | 2.25 | 2.00 | 2.00 | 2.05 | 2.05 | 2.50 |
| 19 | 3.00 | 4.30 | 22.80 | 3.50 | 3.00 | 2.80 | 2.20 | 2.00 | 2.85 | 2.10 | 2.05 | 2.50 |
| 20 | 2.90 | 4.00 | 15.80 | 3.50 | 2.95 | 2.70 | 2.18 | 2.00 | 2.30 | 2.10 | 2.05 | 2.45 |
| 21 | 2.80 | 3.75 | 7.30 | 3.50 | 2.90 | 2.60 | 2.15 | 2.00 | 2.15 | 2.10 | 2.00 | 2.35 |
| 22 | 2.70 | 3.50 | 6.90 | 3.50 | 2.95 | 2.50 | 2.15 | 2.00 | 2.00 | 2.10 | 2.00 | 2.25 |
| 23 | 2.70 | 3.40 | 5.90 | 3.50 | 3.00 | 2.40 | 2.15 | 2.00 | 2.00 | 2.10 | 2.00 | 3.00 |
| 24 | 2.70 | 3.25 | 5.30 | 3.50 | 2.90 | 2.30 | 2.15 | 2.00 | 2.00 | 2.10 | 2.00 | 3.10 |
| 25 | 3.00 | 3.20 | 4.80 | 3.70 | 2.85 | 2.30 | 2.15 | 2.05 | 2.00 | 2.08 | 2.00 | 3.10 |
| 26 | 2.85 | 3.70 | 4.70 | 4.50 | 2.80 | 2.60 | 3.70 | 2.03 | 1.95 | 2.08 | 2.05 | 3.08 |
| 27 | 2.70 | 13.30 | 6.50 | 4.25 | 2.80 | 2.50 | 3.30 | 2.05 | 1.95 | 2.05 | 2.05 | 3.05 |
| 28 | 2.70 | 6.00 | 6.50 | 3.60 | 2.80 | 2.40 | 2.70 | 2.10 | 2.00 | 2.05 | 2.05 | 3.05 |
| 29 | 2.70 | ------- | 6.00 | 3.40 | 2.80 | 2.40 | 2.40 | 2.25 | 2.00 | 2.03 | 2.10 | 3.00 |
| 30 | 2.70 | ------- | 5.50 | 3.80 | 2.80 | 2.40 | 2.35 | 2.35 | 1.95 | 2.00 | 2.10 | 3.50 |
| 31 | 2.70 | ------- | 5.00 | ------- | 2.80 | ------- | 2.30 | 4.00 | ------- | 2.05 | ------ | 3.65 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C., FOR 1900.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | ---------- | 3.15 | 2.80 | (*) | 3.55 | 3.70 | 2.85 |
| 2 | ---------- | 2.65 | 2.70 | (*) | 3.60 | 3.50 | 2.85 |
| 3 | ---------- | 3.35 | 2.55 | 1.80 | 3.65 | 3.10 | 3.40 |
| 4 | ---------- | 3.15 | 2.40 | 1.72 | 3.70 | 4.10 | 4.50 |
| 5 | ---------- | 3.10 | 2.40 | 1.75 | 3.70 | 3.20 | 4.10 |
| 6 | ---------- | 3.00 | 2.40 | 1.90 | 4.20 | 3.10 | 3.85 |
| 7 | ---------- | 2.90 | 2.40 | 1.85 | 3.90 | 3.10 | 3.45 |
| 8 | ---------- | 2.90 | 2.35 | 1.80 | 3.85 | 2.95 | 3.15 |
| 9 | ---------- | 2.80 | 2.30 | 1.78 | 3.80 | 2.75 | 3.00 |
| 10 | ---------- | 2.75 | 2.30 | 1.72 | 3.75 | 2.75 | 2.95 |
| 11 | ---------- | 2.65 | 2.30 | 1.70 | 3.75 | 2.75 | 2.95 |
| 12 | ---------- | 2.60 | 2.25 | 1.75 | 3.75 | 2.75 | 2.80 |
| 13 | 2.35 | 2.60 | 2.25 | 1.75 | 3.70 | 2.75 | 2.85 |
| 14 | 2.80 | 2.55 | 2.25 | 1.65 | 3.60 | 2.75 | 2.80 |
| 15 | 3.15 | 2.50 | (*) | 1.85 | 3.60 | 2.70 | 2.70 |
| 16 | 4.85 | 2.50 | (*) | 5.00 | 3.60 | 2.65 | 2.75 |
| 17 | 8.65 | 2.50 | (*) | 5.70 | 3.60 | 2.60 | 2.75 |
| 18 | 7.50 | 2.50 | (*) | 4.40 | 3.65 | 2.50 | 2.60 |
| 19 | 5.05 | 2.50 | (*) | 3.55 | 3.70 | 2.55 | 2.60 |
| 20 | 4.55 | 2.50 | (*) | 3.10 | 3.65 | 2.55 | 3.10 |
| 21 | 3.45 | 2.50 | (*) | 3.30 | 3.60 | 2.60 | 4.85 |
| 22 | 4.75 | 2.50 | (*) | 3.55 | 3.75 | 2.60 | 5.20 |
| 23 | 6.14 | 2.30 | (*) | 3.55 | 4.10 | 2.50 | 4.75 |
| 24 | 5.75 | 2.70 | (*) | 3.55 | 20.20 | 2.45 | 4.20 |
| 25 | 5.65 | 2.70 | (*) | 3.50 | 7.40 | 3.60 | 3.80 |
| 26 | 5.40 | 3.25 | (*) | 3.45 | 5.70 | 9.10 | 3.35 |
| 27 | 4.15 | 3.20 | (*) | 3.40 | 4.90 | 5.00 | 3.15 |
| 28 | 3.65 | 2.90 | (*) | 3.38 | 4.70 | 4.10 | 3.00 |
| 29 | 3.45 | 2.70 | (*) | 3.30 | 4.45 | 3.60 | 3.10 |
| 30 | 3.30 | 2.70 | (*) | 3.40 | 4.35 | 3.25 | 3.35 |
| 31 | ---------- | 3.00 | (*) | ---------- | 3.90 | ---------- | 4.05 |

*No record.

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.40 | 2.80 | 3.00 | 5.50 | 3.90 | 4.40 | 2.95 | 2.60 | 6.30 | 4.20 | 2.35 | 2.10 |
| 2 | 3.35 | 2.85 | 2.98 | 8.50 | 3.85 | 3.30 | 2.55 | 2.55 | 5.20 | 3.50 | 2.35 | 2.20 |
| 3 | 3.25 | 2.90 | 2.98 | 15.10 | 3.75 | 3.60 | 2.40 | 2.50 | 4.40 | 3.20 | 2.35 | 2.70 |
| 4 | 3.10 | 4.25 | 2.98 | 9.80 | 3.60 | 3.40 | 2.30 | 2.50 | 4.15 | 3.10 | 2.35 | 2.80 |
| 5 | 3.00 | 3.40 | 2.98 | 6.00 | 3.50 | 3.35 | 2.30 | 3.30 | 4.00 | 2.95 | 2.50 | 2.30 |
| 6 | 2.95 | 3.20 | 2.95 | 5.10 | 3.45 | 5.50 | 2.30 | 18.00 | 3.60 | 2.70 | 2.50 | 2.20 |
| 7 | 2.90 | 3.00 | 2.95 | 4.80 | 3.35 | 4.50 | 3.00 | 10.63 | 3.40 | 2.60 | 2.50 | 2.20 |
| 8 | 2.90 | 3.15 | 2.95 | 4.50 | 3.40 | 4.15 | 4.65 | 5.35 | 3.30 | 2.55 | 2.50 | 2.20 |
| 9 | 2.85 | 3.20 | 2.95 | 4.40 | 3.30 | 3.20 | 3.60 | 4.00 | 3.25 | 2.45 | 2.50 | 2.20 |
| 10 | 3.00 | 3.35 | 3.00 | 4.30 | 3.95 | 3.13 | 3.00 | 4.25 | 3.20 | 2.40 | 2.30 | 2.20 |
| 11 | 3.25 | 3.20 | 4.80 | 4.00 | 3.70 | 3.00 | 3.05 | 3.80 | 3.20 | 2.40 | 2.20 | 2.20 |
| 12 | 11.55 | 3.20 | 4.10 | 4.00 | 3.55 | 2.98 | 3.00 | 4.00 | 3.05 | 2.40 | 2.30 | 2.20 |
| 13 | 7.55 | 3.15 | 3.50 | 4.20 | 3.45 | 2.90 | 3.00 | 6.45 | 3.00 | 4.50 | 2.35 | 2.20 |
| 14 | 5.35 | 3.15 | 3.35 | 6.40 | 3.30 | 13.80 | 3.25 | 15.60 | 3.00 | 2.75 | 2.20 | 2.50 |
| 15 | 4.10 | 3.15 | 3.25 | 5.00 | 3.25 | 10.00 | 5.10 | 16.00 | 3.00 | 2.45 | 2.20 | 16.80 |
| 16 | 3.65 | 3.10 | 3.10 | 5.00 | 3.30 | 8.50 | 3.80 | 11.10 | 3.00 | 2.40 | 2.20 | 6.00 |
| 17 | 3.40 | 3.10 | 3.05 | 4.60 | 3.35 | 7.30 | 3.55 | 10.70 | 5.50 | 2.40 | 2.15 | 4.50 |
| 18 | 3.30 | 3.05 | 3.00 | 4.25 | 3.25 | 6.70 | 3.40 | 8.80 | 4.80 | 2.40 | 2.15 | 3.90 |
| 19 | 3.30 | 3.00 | 3.10 | 7.25 | 4.20 | 5.70 | 3.10 | 6.50 | 3.30 | 2.40 | 2.25 | 3.70 |
| 20 | 3.20 | 3.00 | 3.05 | 24.90 | 8.65 | 5.15 | 6.25 | 6.00 | 3.00 | 2.40 | 2.25 | 3.20 |
| 21 | 3.00 | 3.00 | 3.00 | (*) | 15.80 | 5.00 | 4.25 | 5.60 | 3.00 | 2.40 | 2.20 | 2.80 |
| 22 | 3.00 | 2.95 | 3.00 | ------- | 28.50 | 5.00 | 3.70 | 9.00 | 2.80 | 2.40 | 2.20 | 2.70 |
| 23 | 2.95 | 2.95 | 3.00 | ------- | 10.70 | 6.30 | 3.40 | 12.80 | 2.75 | 2.40 | 3.60 | 2.70 |
| 24 | 2.95 | 3.00 | 3.00 | ------- | 6.35 | 4.05 | 3.10 | 8.80 | 2.70 | 2.40 | 2.70 | 2.70 |
| 25 | 2.90 | 3.00 | 6.70 | ------- | 5.40 | 3.50 | 2.95 | 6.50 | 2.70 | 2.40 | 2.40 | 2.65 |
| 26 | 2.85 | 2.95 | 17.50 | 4.60 | 5.60 | 3.55 | 2.65 | 5.75 | 2.60 | 2.35 | 2.25 | 2.60 |
| 27 | 2.80 | 2.95 | 10.85 | 4.37 | 8.70 | 3.25 | 3.25 | 9.10 | 2.55 | 2.35 | 2.25 | 3.80 |
| 28 | 2.80 | 2.98 | 7.05 | 4.20 | 7.50 | 3.50 | 4.50 | 5.25 | 3.10 | 2.35 | 2.15 | 4.00 |
| 29 | 2.80 | ------- | 5.80 | 4.00 | 5.70 | 3.40 | 6.35 | 9.80 | 4.00 | 2.35 | 2.10 | 19.50 |
| 30 | 2.80 | ------- | 5.20 | 3.80 | 5.85 | 3.40 | 3.25 | 7.60 | 4.80 | 2.35 | 2.00 | 11.10 |
| 31 | 2.80 | ------- | 5.60 | ------- | 5.35 | ------- | 2.80 | 6.65 | ------- | 2.35 | ------ | 6.50 |

*Gage wire broken from April 21–26.

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT CATAWBA, N. C.

| Day. | Jan. | Feb. | Mar. | Apr. | Day. | Jan. | Feb. | Mar. | Apr. |
|---|---|---|---|---|---|---|---|---|---|
| 1902. | | | | | 1902. | | | | |
| 1 | ------ | 3.35 | 11.80 | 5.35 | 17 | 2.55 | 2.60 | 6.50 | ------ |
| 2 | ------ | 3.35 | 8.20 | 4.60 | 18 | 2.50 | 2.60 | 4.20 | ------ |
| 3 | ------ | 4.60 | 6.50 | 3.85 | 19 | 2.50 | 2.60 | 3.95 | ------ |
| 4 | ------ | 4.35 | 5.25 | 3.25 | 20 | 2.50 | 2.60 | 3.80 | ------ |
| 5 | 3.25 | 4.05 | 4.40 | 3.00 | 21 | 2.50 | 2.85 | 3.55 | ------ |
| 6 | 3.20 | 4.05 | 3.85 | 3.00 | 22 | 2.50 | 3.60 | 3.25 | ------ |
| 7 | 3.20 | 3.80 | 3.60 | 3.00 | 23 | 2.50 | 3.35 | 3.10 | ------ |
| 8 | 3.15 | 3.60 | 3.45 | 3.20 | 24 | 2.50 | 3.10 | 3.00 | ------ |
| 9 | 3.05 | 2.85 | 3.30 | 3.05 | 25 | 2.50 | 8.20 | 2.90 | ------ |
| 10 | 2.90 | 2.60 | 3.15 | 3.00 | 26 | 2.50 | 6.70 | 2.85 | ------ |
| 11 | 2.80 | 2.60 | 3.10 | 3.00 | 27 | 2.50 | 4.75 | 2.85 | ------ |
| 12 | 2.80 | 2.60 | 3.00 | ------ | 28 | 3.25 | 19.00 | 3.90 | ------ |
| 13 | 2.75 | 2.60 | 3.00 | ------ | 29 | 4.10 | ------ | 13.25 | ------ |
| 14 | 2.70 | 2.60 | 3.15 | ------ | 30 | 3.80 | ------ | 6.70 | ------ |
| 15 | 2.70 | 2.60 | 4.10 | ------ | 31 | 3.50 | ------ | 6.10 | ------ |
| 16 | 2.60 | 2.60 | 4.90 | ------ | | | | | |

RATING TABLE FOR CATAWBA RIVER AT CATAWBA, N. C., FOR 1896.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 540 | 2.50 | 1,630 | 4.00 | 5,000 | 5.50 | 9,500 |
| 1.10 | 570 | 2.60 | 1,740 | 4.10 | 5,300 | 5.60 | 9,800 |
| 1.20 | 610 | 2.70 | 1,860 | 4.20 | 5,600 | 5.70 | 10,100 |
| 1.30 | 655 | 2.80 | 1,990 | 4.30 | 5,900 | 5.80 | 10,400 |
| 1.40 | 710 | 2.90 | 2,140 | 4.40 | 6,200 | 5.90 | 10,700 |
| 1.50 | 770 | 3.00 | 2,300 | 4.50 | 6,500 | 6.00 | 11,000 |
| 1.60 | 835 | 3.10 | 2,480 | 4.60 | 6,800 | 6.10 | 11,300 |
| 1.70 | 910 | 3.20 | 2,700 | 4.70 | 7,100 | 6.20 | 11,600 |
| 1.80 | 980 | 3.30 | 2,950 | 4.80 | 7,400 | 6.30 | 11,900 |
| 1.90 | 1,060 | 3.40 | 3,220 | 4.90 | 7,700 | 6.40 | 12,200 |
| 2.00 | 1,140 | 3.50 | 3,500 | 5.00 | 8,000 | 6.50 | 12,500 |
| 2.10 | 1,230 | 3.60 | 3,800 | 5.10 | 8,300 | 6.60 | 12,800 |
| 2.20 | 1,320 | 3.70 | 4,100 | 5.20 | 8,600 | 6.70 | 13,100 |
| 2.30 | 1,420 | 3.80 | 4,400 | 5.30 | 8,900 | 6.80 | 13,400 |
| 2.40 | 1,530 | 3.90 | 4,700 | 5.40 | 9,200 | 6.90 | 13,700 |

RATING TABLE FOR CATAWBA RIVER AT CATAWBA, N. C., FOR 1897.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.5 | 750 | 3.8 | 4,535 | 6.6 | 12,795 | 10.0 | 22,825 |
| 1.6 | 850 | 4.0 | 5,125 | 6.8 | 13,385 | 10.5 | 24,300 |
| 1.7 | 950 | 4.2 | 5,715 | 7.0 | 13,975 | 11.0 | 25,775 |
| 1.8 | 1,050 | 4.4 | 6,305 | 7.2 | 14,565 | 11.5 | 27,250 |
| 1.9 | 1,160 | 4.6 | 6,895 | 7.4 | 15,155 | 12.0 | 28,725 |
| 2.0 | 1,270 | 4.8 | 7,485 | 7.6 | 15,745 | 12.5 | 30,200 |
| 2.2 | 1,490 | 5.0 | 8,075 | 7.8 | 16,335 | 13.0 | 31,675 |
| 2.4 | 1,730 | 5.2 | 8,665 | 8.0 | 16,925 | 13.5 | 33,150 |
| 2.6 | 1,980 | 5.4 | 9,255 | 8.2 | 17,515 | 14.0 | 34,625 |
| 2.8 | 2,250 | 5.6 | 9,845 | 8.4 | 18,105 | 14.5 | 36,100 |
| 3.0 | 2,560 | 5.8 | 10,435 | 8.6 | 18,695 | 15.0 | 37,575 |
| 3.2 | 2,980 | 6.0 | 11,025 | 8.8 | 19,285 | 15.5 | 39,050 |
| 3.4 | 3,450 | 6.2 | 11,615 | 9.0 | 19,875 | 16.0 | 40,525 |
| 3.6 | 3,960 | 6.4 | 12,205 | 9.5 | 21,350 | | |

RATING TABLE FOR CATAWBA RIVER AT CATAWBA, N. C., FOR 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.5 | 750 | 3.6 | 4,375 | 7.2 | 14,715 | 13.5 | 33,300 |
| 1.6 | 870 | 3.8 | 4,875 | 7.4 | 15,305 | 14.0 | 34,775 |
| 1.7 | 1,000 | 4.0 | 5,400 | 7.6 | 15,895 | 14.5 | 36,250 |
| 1.8 | 1,140 | 4.2 | 5,940 | 7.8 | 16,485 | 15.0 | 37,725 |
| 1.9 | 1,280 | 4.4 | 6,495 | 8.0 | 17,075 | 15.5 | 39,200 |
| 2.0 | 1,425 | 4.6 | 7,065 | 8.2 | 17,665 | 16.0 | 40,675 |
| 2.1 | 1,575 | 4.8 | 7,640 | 8.4 | 18,255 | 16.5 | 42,150 |
| 2.2 | 1,725 | 5.0 | 8,225 | 8.6 | 18,845 | 17.0 | 43,650 |
| 2.3 | 1,875 | 5.2 | 8,815 | 8.8 | 19,435 | 17.5 | 45,150 |
| 2.4 | 2,025 | 5.4 | 9,405 | 9.0 | 20,025 | 18.0 | 46,650 |
| 2.5 | 2,175 | 5.6 | 9,995 | 9.5 | 21,500 | 18.5 | 48,150 |
| 2.6 | 2,325 | 5.8 | 10,585 | 10.0 | 22,975 | 19.0 | 49,650 |
| 2.7 | 2,500 | 6.0 | 11,175 | 10.5 | 24,450 | 19.5 | 51,150 |
| 2.8 | 2,675 | 6.2 | 11,765 | 11.0 | 25,925 | 20.0 | 52,650 |
| 2.9 | 2,860 | 6.4 | 12,355 | 11.5 | 27,400 | 20.5 | 54,150 |
| 3.0 | 3,050 | 6.6 | 12,945 | 12.0 | 28,875 | 21.0 | 55,650 |
| 3.2 | 3,450 | 6.8 | 13,535 | 12.5 | 30,350 | 21.5 | 57,150 |
| 3.4 | 3,900 | 7.0 | 14,125 | 13.0 | 31,825 | 22.0 | 58,650 |

RATING TABLE FOR CATAWBA RIVER AT CATAWBA, N. C., FOR 1899.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | ----- | 3.4 | 3,900 | 7.0 | 14,125 | 13.0 | 31,825 |
| 1.2 | ----- | 3.6 | 4,375 | 7.5 | 15,600 | 13.5 | 33,300 |
| 1.4 | ----- | 3.8 | 4,875 | 8.0 | 17,075 | 14.0 | 34,775 |
| 1.6 | 850 | 4.0 | 5,400 | 8.5 | 18,550 | 14.5 | 36,250 |
| 1.8 | 1,050 | 4.2 | 5,940 | 9.0 | 20,025 | 15.0 | 37,725 |
| 2.0 | 1,270 | 4.4 | 6,495 | 9.5 | 21,500 | 16.0 | 40,675 |
| 2.2 | 1,540 | 4.6 | 7,065 | 10.0 | 22,975 | 17.0 | 43,650 |
| 2.4 | 1,840 | 4.8 | 7,640 | 10.5 | 24,450 | 18.0 | 46,650 |
| 2.6 | 2,200 | 5.0 | 8,225 | 11.0 | 25,925 | 19.0 | 49,650 |
| 2.8 | 2,600 | 5.5 | 9,700 | 11.5 | 27,400 | 20.0 | 52,650 |
| 3.0 | 3,000 | 6.0 | 11,175 | 12.0 | 28,875 | | |
| 3.2 | 3,450 | 6.5 | 12,650 | 12.5 | 30,350 | | |

NOTE.—No rating was made for 1900.

RATING TABLE FOR CATAWBA RIVER AT CATAWBA, N. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 2,000 | 4.8 | 4,780 | 7.6 | 8,400 | 14.0 | 25,250 |
| 2.2 | 2,180 | 5.0 | 5,000 | 7.8 | 8,700 | 14.5 | 27,125 |
| 2.4 | 2,360 | 5.2 | 5,240 | 8.0 | 9,000 | 15.0 | 29,000 |
| 2.6 | 2,540 | 5.4 | 5,480 | 8.5 | 9,950 | 15.5 | 30,637 |
| 2.8 | 2,720 | 5.6 | 5,720 | 9.0 | 10,900 | 16.0 | 32,750 |
| 3.0 | 2,900 | 5.8 | 5,960 | 9.5 | 12,050 | 16.5 | 34,388 |
| 3.2 | 3,100 | 6.0 | 6,200 | 10.0 | 13,200 | 17.0 | 36,500 |
| 3.4 | 3,300 | 6.2 | 6,460 | 10.5 | 14,450 | 17.5 | 38,137 |
| 3.6 | 3,500 | 6.4 | 6,720 | 11.0 | 15,700 | 18.0 | 40,250 |
| 3.8 | 3,700 | 6.6 | 6,980 | 11.5 | 17,100 | 19.0 | 44,000 |
| 4.0 | 3,900 | 6.8 | 7,240 | 12.0 | 18,500 | 20.0 | 47,750 |
| 4.2 | 4,120 | 7.0 | 7,500 | 12.5 | 20,100 | 25.0 | 66,500 |
| 4.4 | 4,340 | 7.2 | 7,800 | 13.0 | 21,700 | 30.0 | 85,250 |
| 4.6 | 4,560 | 7.4 | 8,100 | 13.5 | 23,475 | | |

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER AT CATAWBA, N. C.

[Drainage area, 3,492 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Depth in Inches. | Second-feet per Square Mile. |
| 1896. | | | | | | |
| July 4 to 31 | *16,100 | 1,420 | 4,466 | 248,024 | 1.33 | 1.28 |
| August | 1,420 | 770 | 1,071 | 65,853 | 0.36 | 0.31 |
| September | 5,000 | 770 | 1,090 | 64,859 | 0.35 | 0.31 |
| October | 1,630 | 770 | 865 | 53,187 | 0.29 | 0.25 |
| November | *15,200 | 835 | 2,222 | 132,218 | 0.71 | 0.64 |
| December | 9,800 | 1,060 | 2,149 | 132,137 | 0.71 | 0.62 |
| 1897. | | | | | | |
| January | 6,452 | 1,050 | 1,647 | 101,270 | 1.23 | 1.07 |
| February | 40,230 | 1,550 | 7,006 | 389,095 | 4.79 | 4.60 |
| March | 17,663 | 1,550 | 5,637 | 346,605 | 4.24 | 3.67 |
| April | 40,525 | 2,180 | 5,014 | 298,355 | 3.64 | 3.26 |
| May | 11,025 | 1,435 | 2,600 | 159,870 | 1.95 | 1.69 |
| June | 3,450 | 1,270 | 1,833 | 109,070 | 1.33 | 1.19 |
| July | 3,210 | 1,270 | 1,774 | 109,080 | 1.34 | 1.16 |
| August | 2,560 | 950 | 1,321 | 81,225 | 0.99 | 0.86 |
| September | 1,380 | 900 | 1,017 | 60,515 | 0.73 | 0.66 |
| October | 16,925 | 850 | 1,787 | 109,880 | 1.35 | 1.17 |
| November | 2,560 | 950 | 1,233 | 73,370 | 0.89 | 0.80 |
| December | 1,850 | 1,105 | 1,328 | 81,656 | 0.99 | 0.86 |
| The year | 40,525 | 850 | 2,683 | 1,919,991 | 23.47 | 1.75 |

*Estimated.

[Drainage area, 1,535 square miles.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 1898. | | | | | | |
| January | 9,700 | 1,280 | 2,103 | 129,310 | 1.58 | 1.37 |
| February | 1,725 | 1,350 | 1,417 | 78,696 | 0.96 | 0.92 |
| March | 15,600 | 1,280 | 2,270 | 139,578 | 1.71 | 1.48 |
| April | 3,675 | 1,575 | 1,949 | 115,973 | 1.42 | 1.27 |
| May | 4,135 | 1,210 | 1,600 | 98,381 | 1.20 | 1.04 |
| June | 4,135 | 1,000 | 1,322 | 78,664 | 0.95 | 0.86 |
| July | 14,125 | 1,140 | 3,321 | 204,202 | 2.48 | 2.15 |
| August | 21,942 | 2,100 | 5,042 | 310,022 | 3.80 | 3.29 |
| September | 52,600 | 1,500 | 6,620 | 393,916 | 4.79 | 4.30 |
| October | 27,400 | 2,675 | 7,250 | 445,788 | 5.45 | 4.72 |
| November | 3,675 | 1,875 | 2,691 | 160,125 | 1.95 | 1.75 |
| December | 9,995 | 2,175 | 3,162 | 194,425 | 2.38 | 2.06 |
| The year | 52,600 | 1,000 | 3,229 | 2,349,080 | 28.67 | 2.10 |
| 1899. | | | | | | |
| January | 17,075 | 2,400 | 4,175 | 256,711 | 3.18 | 2.76 |
| February | 32,710 | 2,400 | 8,776 | 487,394 | 6.04 | 5.80 |
| March | 61,050 | 4,135 | 13,127 | 807,148 | 9.99 | 8.67 |
| April | 19,730 | 3,900 | 6,172 | 367,259 | 4.55 | 4.08 |
| May | 8,520 | 2,600 | 3,933 | 241,831 | 2.99 | 2.59 |
| June | 3,787 | 1,270 | 2,492 | 148,284 | 1.84 | 1.65 |
| July | 4,625 | 1,470 | 1,873 | 115,166 | 1.43 | 1.24 |
| August | 5,400 | 1,270 | 1,645 | 101,147 | 1.26 | 1.09 |
| September | 2,800 | 1,210 | 1,588 | 94,493 | 1.17 | 1.05 |
| October | 1,760 | 1,150 | 1,386 | 85,222 | 1.06 | 0.92 |
| November | 1,540 | 1,270 | 1,384 | 82,354 | 1.01 | 0.91 |
| December | 12,650 | 1,400 | 2,921 | 179,605 | 2.22 | 1.93 |
| The year | 61,050 | 1,150 | 4,123 | 2,966,614 | 36.74 | 2.72 |

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER AT CATAWBA, N. C.—*Continued.*

[Drainage area, 1,514 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1901. | | | | | |
| January | 17,240 | 2,720 | 3,777 | 2.49 | 2.87 |
| February | 4,175 | 2,720 | 3,009 | 1.99 | 2.07 |
| March | 38,375 | 2,855 | 5,130 | 3.39 | 3.91 |
| April 1-20 | ------ | ----- | 9,911 | 6.55 | 4.87 |
| May | 81,500 | 3,150 | 8,260 | 5.46 | 6.29 |
| June | 24,540 | 2,810 | 5,358 | 3.54 | 3.95 |
| July | 6,655 | 2,275 | 3,383 | 2.23 | 2.57 |
| August | 40,250 | 2,450 | 10,326 | 6.82 | 7.87 |
| September | 6,590 | 2,495 | 3,493 | 2.31 | 2.58 |
| October | 4,120 | 2,315 | 2,601 | 1.72 | 1.98 |
| November | 3,500 | 2,000 | 2,311 | 1.53 | 1.71 |
| December | 45,875 | 2,090 | 5,830 | 3.85 | 4.44 |

NOTE.—No estimates made for 1900.

## CATAWBA RIVER NEAR MORGANTON, N. C.

The original station was established June 19, 1900, in connection with the hydrographic investigation of the southern Appalachian area, at which time a wire gage was installed on the highway bridge on the road from Morganton to Hartland. In May, 1901, the river throughout this part of its course rose from 8 to 15 feet higher than ever before known, and the bridge and gage were destroyed. The present station was established May 15, 1903, at the bridge which was built to replace the one carried away by the flood of May, 1901. The station is 1 mile north of Morganton and about 200 yards below the mouth of Upper Creek.

The channel is straight for about 200 feet above and 600 feet below the station. The current is swift. The right bank is low and overflows to a slight extent on account of erosion, but all water passes beneath the approach to the bridge. The left bank is high, rocky, and wooded. The bed of the stream is rocky, with sand and gravel near the right bank.

Discharge measurements are made from the downstream side of the single-span steel highway bridge. The initial point for soundings is the left end of the downstream hand rail.

A standard chain gage is attached to the lower chord on the downstream side of the bridge; length of chain, 37.60 feet. The gage is read once each day by Oscar A. Gillam. Bench marks were established as follows: (1) The left side of the upper surface of the sixth floor beam at the downstream side of the bridge, marked by a spot of white paint and the letters "B. M."; elevation, 34.77 feet. (2) A copper plug set in cement in a rock on the left bank 24.3 feet back of the initial point for soundings, 3 feet downstream from the line of the downstream truss. It is about 1½ feet above the road and is enclosed in a circle of white paint and marked "B. M."; elevation, 37.37 feet. Elevations refer to the datum of the gage.

DISCHARGE MEASUREMENTS OF CATAWBA RIVER NEAR MORGANTON, N. C., IN 1903-1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Feb. 13 | E. W. Myers | --- | 850 | 3.36 | 2.77 | 2,861 |
| May 5 | ----do | --- | 726 | 2.28 | 2.04 | 1,656 |
| May 5 | ----do | --- | 726 | 2.33 | 2.05 | 1,698 |
| June 25 | ----do | --- | 611 | 2.09 | 1.93 | 1,276 |
| June 25 | ----do | --- | 611 | 2.10 | 1.95 | 1,282 |
| Aug. 21 | B. S. Drane | --- | 552 | 2.14 | 1.77 | 1,181 |
| Aug. 21 | ----do | --- | 554 | 2.15. | 1.76 | 1,193 |
| Oct. 28 | ----do | --- | 458 | 1.15 | 1.16 | 528 |
| Oct. 28 | ----do | --- | 462 | 1.21 | 1.18 | 559 |
| Dec. 11 | ----do | --- | 439 | 1.09 | 1.19 | 480 |
| Dec. 11 | ----do | --- | 440 | 1.12 | 1.22 | 493 |
| 1904. | | | | | | |
| Feb. 17 | B. S. Drane | --- | 435 | 1.24 | 1.23 | 539 |
| Mar. 18 | ----do | --- | 622 | 1.31 | 1.56 | 816 |
| Mar. 18 | ----do | --- | 615 | 1.37 | 1.56 | 843 |
| May 5 | ----do | --- | 641 | 2.04 | 2.08 | 1,305 |
| May 27 | ----do | --- | 458 | 1.68 | 1.48 | 770 |
| July 21 | ----do | --- | 415 | 1.08 | 1.01 | 447 |
| Aug. 19 | ----do | --- | 427 | 1.49 | 1.28 | 637 |
| Sept. 29 | ----do | --- | 356 | 1.10 | 1.04 | 391 |
| Sept. 29 | ----do | --- | 356 | 1.11 | 1.01 | 395 |
| Dec. 15 | ----do | --- | 394 | 1.15 | 1.15 | 454 |
| Dec. 16 | ----do | --- | 405 | 1.23 | 1.18 | 500 |
| 1905. | | | | | | |
| Apr. 19 | B. S. Drane | 170 | 482 | 1.72 | 1.51 | 827 |
| June 27 | ----do | 139 | 419 | 1.76 | 1.35 | 738 |
| Aug. 25 | ----do | 171 | 630 | 2.43 | 2.01 | 1,529 |
| Nov. 9 | W. E. Hall | 165 | 460 | 1.08 | 1.09 | 498 |
| 1906. | | | | | | |
| Mar. 2 | Murphy and Hall | 160 | 709 | ---- | 1.84 | 1,240 |
| June 18 | W. E. Hall | 216 | 1,220 | ---- | 4.36 | 4,640 |
| 1907. | | | | | | |
| Apr. 1 | Warren E. Hall | 170 | 550 | 2.23 | 1.93 | 1,228 |
| May 21 | ----do | 170 | 476 | 1.71 | 1.50 | 816 |
| Sept. 27 | ----do | 160 | 560 | 1.63 | 1.58 | 913 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER NEAR MORGANTON, N. C., FOR 1903.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 3.45 | 1.75 | 1.50 | 1.55 | 1.25 | 1.20 | 1.20 |
| 2 | ---------- | 3.45 | 1.70 | 1.75 | 1.45 | 1.25 | 1.20 | 1.20 |
| 3 | ---------- | 3.25 | 1.70 | 1.60 | 1.35 | 1.25 | 1.20 | 1.20 |
| 4 | ---------- | 2.45 | 1.75 | 2.55 | 1.35 | 1.25 | 1.20 | 1.20 |
| 5 | ---------- | 3.00 | 2.00 | 2.25 | 1.30 | 1.25 | 2.00 | 1.20 |
| 6 | 2.00 | 10.00 | 2.00 | 1.50 | 1.35 | 1.30 | 1.55 | 1.20 |
| 7 | 2.00 | 5.25 | 2.15 | 1.50 | 1.30 | 1.50 | 1.35 | 1.20 |
| 8 | 1.95 | 3.60 | 1.80 | 1.40 | 1.45 | 3.00 | 1.25 | 1.20 |
| 9 | 1.95 | 2.45 | 1.70 | 1.35 | 1.95 | 1.65 | 1.25 | 1.20 |
| 10 | 1.95 | 6.45 | 1.65 | 1.30 | 1.45 | 1.40 | 1.25 | 1.20 |
| 11 | 1.95 | 4.00 | 1.80 | 1.40 | 1.40 | 1.40 | 1.25 | 1.20 |
| 12 | 1.90 | 3.35 | 2.00 | 1.60 | 1.45 | 1.35 | 1.20 | 1.15 |
| 13 | 1.90 | 2.90 | 2.40 | 1.85 | 1.30 | 1.35 | 1.20 | 1.30 |
| 14 | 2.00 | 2.60 | 2.00 | 1.95 | 1.35 | 1.30 | 1.20 | 1.25 |
| 15 | 1.95 | 2.45 | 1.90 | 1.80 | 1.40 | 1.30 | 1.20 | 1.25 |
| 16 | 1.90 | 2.35 | 1.80 | 2.75 | 1.75 | 1.30 | 1.20 | 1.25 |
| 17 | 1.90 | 2.30 | 1.75 | 2.00 | 2.15 | 1.50 | 1.70 | 1.25 |
| 18 | 1.90 | 2.60 | 1.70 | 2.00 | 2.05 | 1.50 | 2.20 | 1.20 |
| 19 | 1.85 | 2.25 | 1.70 | 1.85 | 1.50 | 1.40 | 1.60 | 1.20 |
| 20 | 1.85 | 2.20 | 1.70 | 1.75 | 1.45 | 1.40 | 1.40 | 1.40 |
| 21 | 1.80 | 2.15 | 1.60 | 1.85 | 1.35 | 1.35 | 1.30 | 1.60 |
| 22 | 1.75 | 2.05 | 1.50 | 1.45 | 1.35 | 1.35 | 1.30 | 1.40 |
| 23 | 1.75 | 2.80 | 1.50 | 1.50 | 1.30 | 1.35 | 1.30 | 1.30 |
| 24 | 1.75 | 2.15 | 1.50 | 1.50 | 1.30 | 1.30 | 1.30 | 1.30 |
| 25 | 1.75 | 2.05 | 1.50 | 1.35 | 1.25 | 1.30 | 1.30 | 1.30 |
| 26 | 1.75 | 2.00 | 1.45 | 1.35 | 1.30 | 1.30 | 1.25 | 1.30 |
| 27 | 1.80 | 1.95 | 1.45 | 1.30 | 1.30 | 1.30 | 1.25 | 1.30 |
| 28 | 1.70 | ---------- | 1.40 | 1.00 | 1.30 | 1.25 | 1.20 | 1.30 |
| 29 | 1.70 | 2.00 | 1.60 | 1.25 | 1.25 | 1.20 | 1.20 | 1.30 |
| 30 | 2.25 | 1.80 | 1.70 | 1.25 | 1.25 | 1.20 | 1.20 | 1.25 |
| 31 | 1.95 | ---------- | 1.60 | 1.20 | ---------- | 1.25 | ---------- | 1.25 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER NEAR MORGANTON, N. C., FOR 1904 AND 1905.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.25 | 1.30 | 1.80 | 1.55 | 1.35 | 4.45 | 1.95 | 3.10 | 1.70 | 0.95 | 1.00 | 1.10 |
| 2 | 1.25 | 1.30 | 1.65 | 1.50 | 1.35 | 3.25 | 1.70 | 2.35 | 2.20 | .95 | 1.00 | 1.15 |
| 3 | 1.25 | 1.25 | 1.60 | 1.45 | 3.30 | 2.40 | 1.50 | 1.90 | 1.55 | .95 | 1.10 | 1.25 |
| 4 | 1.20 | 1.25 | 1.55 | 1.40 | 2.60 | 2.10 | 1.35 | 1.70 | 1.90 | .90 | 1.75 | 1.40 |
| 5 | 1.20 | 1.25 | 1.50 | 1.40 | 2.15 | 1.90 | 1.50 | 1.95 | 2.20 | .95 | 1.50 | 1.70 |
| 6 | 1.20 | 1.25 | 1.50 | 1.40 | 1.80 | 1.75 | 1.35 | 2.30 | 1.50 | .95 | 1.30 | 2.05 |
| 7 | 1.50 | 1.35 | 9.20 | 1.50 | 1.70 | 1.95 | 1.30 | 2.45 | 1.40 | 1.10 | 1.15 | 1.55 |
| 8 | 1.30 | 1.90 | 4.30 | 1.55 | 3.50 | 2.00 | 1.30 | 2.00 | 1.30 | 1.00 | 1.10 | 1.40 |
| 9 | 1.20 | 1.70 | 2.80 | 2.65 | 4.10 | 1.65 | 1.35 | 1.70 | 1.30 | 1.05 | 1.10 | 1.35 |
| 10 | 1.20 | 1.65 | 2.30 | 1.70 | 3.05 | 1.60 | 1.30 | 2.10 | 1.30 | 1.00 | 1.05 | 1.35 |
| 11 | 1.20 | 1.50 | 2.10 | 1.60 | 2.40 | 1.70 | 1.30 | 2.05 | 1.35 | .95 | 1.00 | 1.35 |
| 12 | 1.20 | 1.40 | 1.90 | 1.60 | 2.10 | 1.55 | 1.35 | 2.40 | 1.30 | .95 | 1.00 | 1.25 |
| 13 | 1.20 | 1.40 | 1.80 | 1.60 | 2.00 | 1.45 | 1.30 | 1.85 | 1.25 | .90 | 1.80 | 1.25 |
| 14 | 1.20 | 1.35 | 1.80 | 1.55 | 1.95 | 1.45 | 1.25 | 1.65 | 1.20 | .90 | 1.50 | 1.20 |
| 15 | 1.20 | 1.35 | 1.75 | 1.50 | 1.90 | 1.40 | 1.25 | 1.50 | 1.15 | .95 | 1.35 | 1.15 |
| 16 | 1.20 | 1.35 | 1.65 | 1.45 | 1.70 | 1.45 | 1.20 | 1.50 | 1.10 | .90 | 1.25 | 1.15 |
| 17 | 1.15 | 1.30 | 1.60 | 1.55 | 1.65 | 1.65 | 1.15 | 1.40 | 1.05 | .85 | 1.20 | 1.20 |
| 18 | 1.15 | 1.30 | 1.60 | 1.45 | 2.30 | 1.60 | 1.10 | 1.35 | 1.05 | .95 | 1.20 | 1.25 |
| 19 | 1.15 | 1.30 | 1.55 | 1.40 | 2.90 | 2.05 | 1.10 | 1.30 | 1.10 | .90 | 1.10 | 1.20 |
| 20 | 1.15 | 1.30 | 1.50 | 1.35 | 1.80 | 1.80 | 1.05 | 1.40 | 1.10 | .90 | 1.00 | 1.15 |
| 21 | 1.20 | 1.30 | 1.50 | 1.40 | 1.60 | 1.55 | 1.10 | 1.35 | 1.10 | .90 | 1.05 | 1.15 |
| 22 | 1.25 | 2.80 | 1.60 | 1.40 | 1.60 | 1.45 | 1.10 | 1.40 | 1.05 | .90 | 1.05 | 1.10 |
| 23 | 2.40 | 2.40 | 1.60 | 1.45 | 1.55 | 1.40 | 1.20 | 2.40 | 1.05 | .90 | 1.05 | 1.05 |
| 24 | 1.65 | 1.85 | 1.90 | 1.35 | 1.60 | 1.35 | 1.15 | 2.40 | 1.05 | .90 | 1.10 | 1.05 |
| 25 | 1.50 | 1.70 | 2.00 | 1.35 | 1.60 | 1.30 | 2.40 | 1.60 | 1.05 | .95 | 1.00 | 1.25 |
| 26 | 1.40 | 1.60 | 1.90 | 1.60 | 1.70 | 1.30 | 1.70 | 1.50 | 1.05 | 1.00 | 1.05 | 1.30 |
| 27 | 1.40 | 1.80 | 1.85 | 1.60 | 1.45 | 1.40 | 1.30 | 2.00 | 1.05 | .95 | 1.05 | 1.75 |
| 28 | 1.35 | 1.80 | 1.80 | 1.45 | 1.50 | 1.65 | 1.65 | 1.65 | 1.00 | .95 | 1 05 | 2.05 |
| 29 | 1.35 | 1.80 | 1.70 | 1.40 | 1.55 | 1.85 | 1.50 | 1.40 | 1.00 | 1.00 | 1.10 | 1.55 |
| 30 | 1.35 | ------ | 1.60 | 1.35 | 1.65 | 2.50 | 1.40 | 1.30 | .95 | .95 | 1.10 | 1.50 |
| 31 | 1.30 | ------ | 1.55 | ------ | 5.25 | ------ | 1.35 | 1.40 | ------ | 1.00 | ------ | 1.45 |
| 1905. | | | | | | | | | | | | |
| 1 | 1.45 | 1.3 | 2.05 | ------ | 1.35 | 1.5 | 1.7 | 1.55 | 1.45 | 1.1 | ------ | 1.1 |
| 2 | 1.4 | 1.25 | 1.00 | ------ | 1.35 | 1.45 | 1.6 | 1.55 | 1.95 | 1.05 | ------ | 1.1 |
| 3 | 1.4 | 1.3 | 1.9 | ------ | 1.5 | 1.4 | 1.65 | 1.5 | 1.8 | 1.15 | ------ | 4.3 |
| 4 | 1.3 | 1.2 | 1.85 | ------ | 1.7 | 1.4 | 1.7 | 1.5 | 1.65 | 1.15 | ------ | 2.0 |
| 5 | 1.25 | 1.25 | 1.85 | ------ | 1.65 | 1.35 | 1.95 | 1.45 | 1.45 | 1.15 | ------ | 1.85 |
| 6 | 1.75 | 1.3 | 1.8 | ------ | 3.3 | 1.35 | 3.3 | 1.55 | 1.4 | 1.1 | ------ | 1.45 |
| 7 | 2.2 | 1.45 | 1.75 | ------ | 2.6 | 1.3 | 2.3 | 1.45 | 1.35 | 1.15 | 1.1 | 1.4 |
| 8 | 1.55 | 1.45 | 1.65 | ------ | 2.25 | 1.25 | 2.0 | 2.0 | 1.3 | 1.15 | 1.1 | 1.3 |
| 9 | 1.45 | 1.4 | 1.8 | 1.75 | 2.4 | 1.25 | 2.95 | 2.7 | 1.3 | 1.1 | 1.1 | 4.8 |
| 10 | 1.85 | 1.3 | 2.2 | 1.7 | 2.5 | 1.2 | 1.95 | 4.1 | 1.3 | 3.4 | 1.1 | 2.6 |
| 11 | 2.3 | 1.6 | 2.25 | 1.65 | 2.25 | 1.15 | 3.2 | 6.2 | 1.25 | 1.65 | 1.1 | 1.9 |
| 12 | 7.2 | 2.1 | 2.1 | 1.75 | 2.2 | 1.15 | 11.5 | 4.2 | 1.35 | 1.55 | 1.1 | 1.75 |
| 13 | 3.8 | 2.6 | 2.00 | 2.05 | 1.95 | 1.1 | 8.2 | 4.0 | 1.3 | 1.4 | 1.1 | 1.7 |
| 14 | 2.65 | 1.7 | 1.9 | 2.00 | 4.5 | 1.15 | 6.2 | 3.5 | 1.25 | 1.35 | 1.15 | 1.6 |
| 15 | 2.1 | 1.7 | 1.65 | 1.85 | 4.6 | 1.6 | 4.0 | 3.6 | 1.25 | 1.35 | 1.1 | 1.95 |
| 16 | 1.95 | 1.6 | 1.6 | 1.7 | 4.8 | 2.3 | 3.4 | 2.9 | 1.25 | 1.25 | 1.1 | 2.35 |
| 17 | 1.7 | 1.55 | 1.7 | 1.65 | 3.2 | 5.6 | 2.6 | 2.5 | 1.25 | 1.2 | 1.1 | 2.1 |
| 18 | 1.6 | 1.5 | 1.6 | 1.65 | 2.7 | 4.7 | 2.4 | 2.3 | 1.3 | 1.2 | 1.05 | 1.95 |
| 19 | 1.55 | 1.45 | 1.6 | 1.5 | 2.45 | 3.2 | 2.25 | 2.2 | 1.3 | 1.2 | 1.05 | 1.85 |
| 20 | 1.5 | 2.3 | 1.55 | 1.45 | 2.0 | 2.6 | 2.15 | 2.1 | 1.25 | 1.2 | 1.2 | 1.7 |
| 21 | 1.5 | 3.7 | 1.5 | 1.4 | 2.05 | 2.25 | 2.1 | 2.0 | 1.3 | 1.15 | 1.2 | 4.8 |
| 22 | 1.45 | 3.8 | 1.55 | 1.45 | 2.0 | 1.9 | 2.6 | 2.0 | 1.2 | 1.1 | 1.15 | 2.8 |
| 23 | 1.4 | 3.6 | 1.6 | 1.45 | 1.95 | 1.85 | 2.45 | 1.8 | 1.2 | 1.05 | 1.1 | 3.3 |
| 24 | 1.35 | 2.9 | 1.5 | 1.4 | 3.3 | 1.7 | 2.4 | 2.0 | 1.2 | 1.15 | 1.1 | 2.05 |
| 25 | 1.3 | 2.6 | ------ | 1.4 | 2.55 | 1.55 | 2.3 | 2.25 | 1.2 | 1.25 | 1.1 | 1.95 |
| 26 | 1.2 | 2.4 | ------ | 1.45 | 2.15 | 1.5 | 2.15 | 1.9 | 1.15 | 1.20 | 1.1 | 1.9 |
| 27 | 1.15 | 2.2 | ------ | 1.5 | 1.95 | 1.35 | 2.1 | 1.75 | 1.15 | ------ | 1.05 | 1.8 |
| 28 | 1.15 | 2.1 | ------ | 1.5 | 1.9 | 1.35 | 1.95 | 1.6 | 1.15 | ------ | 1.1 | 1.6 |
| 29 | 1.1 | ------ | ------ | 1.45 | 1.85 | 1.65 | 2.00 | 1.55 | 1.15 | ------ | 1.1 | 1.6 |
| 30 | 1.35 | ------ | ------ | 1.4 | 1.75 | 1.8 | 1.85 | 1.5 | 1.1 | ------ | 1.1 | 1.75 |
| 31 | 1.3 | ------ | ------ | ------ | 1.65 | ------ | 1.6 | 1.4 | ------ | ------ | ------ | 1.6 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER NEAR MORGANTON, N. C., FOR 1906.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.65 | 3.3 | 1.9 | 3.1 | 2.15 | 1.5 | 17 | 2.35 | 2.05 | 2.6 | 2.8 | 1.7 | 4.0 |
| 2 | 1.65 | 2.8 | 1.85 | 2.8 | 2.05 | 1.45 | 18 | 2.15 | 2.0 | 2.1 | 2.6 | 1.6 | 3.35 |
| 3 | 3.4 | 2.7 | 1.85 | 2.4 | 2.05 | 1.4 | 19 | 2.15 | 2.0 | 2.85 | 2.5 | 1.6 | 2.85 |
| 4 | 5.6 | 2.6 | 2.05 | 2.25 | 2.0 | 2.75 | 20 | 2.0 | 1.95 | 2.8 | 2.35 | 1.55 | 3.3 |
| 5 | 2.8 | 2.6 | 2.35 | 2.15 | 2.3 | 2.2 | 21 | 1.9 | 2.1 | 2.5 | 2.2 | 1.55 | 2.7 |
| 6 | 2.45 | 2.5 | 2.25 | 2.2 | 2.05 | 1.95 | 22 | 2.3 | 2.0 | 2.35 | 2.15 | 1.5 | 3.45 |
| 7 | 2.3 | 2.3 | 2.1 | 2.2 | 2.05 | 1.7 | 23 | 13.1 | 2.2 | 2.35 | 2.1 | 1.6 | 3.0 |
| 8 | 2.2 | 2.25 | 2.3 | 2.1 | 2.0 | 1.65 | 24 | 5.4 | 2.2 | 2.2 | 2.1 | 1.55 | 2.1 |
| 9 | 2.0 | 2.2 | 2.2 | 2.0 | 1.9 | 1.6 | 25 | 4.0 | 2.1 | 2.05 | 1.95 | 1.45 | 2.05 |
| 10 | 1.85 | 2.1 | 2.1 | 1.95 | 1.9 | 2.4 | 26 | 3.8 | 2.1 | 2.0 | 1.9 | 1.6 | 2.05 |
| 11 | 2.9 | 2.05 | 1.95 | 1.9 | 1.85 | 2.1 | 27 | 4.0 | 2.05 | 1.9 | 1.8 | 2.05 | 1.9 |
| 12 | 3.3 | 2.2 | 1.9 | 1.9 | 1.7 | 2.5 | 28 | 3.9 | 1.95 | 1.9 | 1.8 | 1.7 | 1.85 |
| 13 | 2.6 | 2.2 | 1.8 | 1.8 | 1.9 | 3.15 | 29 | 3.8 | ------ | 1.8 | 1.85 | 1.65 | 1.85 |
| 14 | 2.05 | 2.15 | 1.95 | 2.6 | 1.95 | 6.4 | 30 | 3.65 | ------ | 4.3 | 1.9 | 1.65 | 1.8 |
| 15 | 3.15 | 2.15 | 4.2 | 2.0 | 1.8 | 9.8 | 31 | 3.5 | ------ | 3.3 | ------ | 1.55 | -------- |
| 16 | 2.8 | 2.15 | 3.15 | 2.9 | 1.75 | 5.2 | | | | | | | |

NOTE.—Gage reading not taken during last six months.

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT MORGANTON, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -------- | 1.90 | 1.90 | 2.00 | 1.95 | 9.10 | 1.80 | 1.35 | 1.10 | 1.45 | 1.15 | 1.45 |
| 2 | -------- | 1.90 | 3.00 | 1.70 | 1.85 | 5.40 | 1.70 | 1.30 | 1.10 | 1.40 | 1.40 | 1.40 |
| 3 | -------- | 1.85 | 2.30 | 1.60 | 2.05 | 3.35 | 1.65 | 1.25 | 1.10 | 1.35 | 1.40 | 1.40 |
| 4 | -------- | 1.80 | 2.00 | 1.60 | 2.15 | 2.75 | 1.60 | 1.20 | 1.15 | 1.35 | 1.25 | 1.45 |
| 5 | -------- | 2.00 | 1.95 | 1.55 | 2.10 | 2.50 | 1.55 | 1.20 | 1.15 | 1.35 | 1.20 | 1.45 |
| 6 | -------- | 1.90 | 1.90 | 1.60 | 1.90 | 2.35 | 1.60 | 1.25 | 1.15 | 1.35 | 1.20 | 1.40 |
| 7 | -------- | 1.80 | 1.90 | 1.60 | 1.85 | 2.20 | 1.50 | 1.20 | 1.15 | 1.30 | 1.15 | 1.40 |
| 8 | -------- | 1.80 | 1.95 | 1.55 | 1.80 | 2.25 | 1.45 | 1.20 | 1.15 | 1.30 | 1.15 | 1.35 |
| 9 | -------- | 1.75 | 1.90 | 1.65 | 1.95 | 2.20 | 1.40 | 1.25 | 1.10 | 1.30 | 1.15 | 3.15 |
| 10 | -------- | 1.75 | 2.95 | 1.60 | 1.80 | 2.20 | 1.35 | 1.30 | 1.10 | 1.25 | 1.35 | 2.10 |
| 11 | -------- | 1.70 | 2.35 | 1.65 | 1.85 | 2.15 | 1.65 | 1.25 | 1.10 | 1.25 | 1.25 | 1.90 |
| 12 | -------- | 1.70 | 2.10 | 1.65 | 1.80 | 2.15 | 1.70 | 1.25 | 2.40 | 1.25 | 1.25 | 1.85 |
| 13 | -------- | 1.70 | 2.00 | 1.65 | 1.70 | 2.10 | 5.50 | 1.30 | 2.10 | 1.20 | 1.20 | 1.75 |
| 14 | -------- | 1.70 | 2.30 | 1.65 | 1.70 | 2.20 | 3.50 | 1.25 | 1.75 | 1.20 | 1.20 | 6.00 |
| 15 | -------- | 1.70 | 2.10 | 1.65 | 1.70 | 2.10 | 2.00 | 1.25 | 1.50 | 1.20 | 1.20 | 3.60 |
| 16 | 2.00 | 1.65 | 1.90 | 1.60 | 1.65 | 1.90 | 1.90 | 1.20 | 1.25 | 1.20 | 1.15 | 2.90 |
| 17 | 1.95 | 1.70 | 1.85 | 1.60 | 1.60 | 1.80 | 1.70 | 1.30 | 1.10 | 1.15 | 1.35 | 2.60 |
| 18 | 1.95 | 1.65 | 1.80 | 1.60 | 1.55 | 1.60 | 1.75 | 1.90 | 1.10 | 1.15 | 1.30 | 2.00 |
| 19 | 1.90 | 1.65 | 1.80 | 2.00 | 1.50 | 1.60 | 1.65 | 1.65 | 1.05 | 1.15 | 1.30 | 1.90 |
| 20 | 1.85 | 1.70 | 1.80 | 1.75 | 1.50 | 1.70 | 1.50 | 1.30 | 1.05 | 1.15 | 1.30 | 1.80 |
| 21 | 1.80 | 1.65 | 1.75 | 1.65 | 1.50 | 1.65 | 1.45 | 1.25 | 1.05 | 1.15 | 2.05 | 1.75 |
| 22 | 1.80 | 1.60 | 1.80 | 1.70 | 1.45 | 1.60 | 1.40 | 1.80 | 1.05 | 1.15 | 1.90 | ------ |
| 23 | 1.80 | 1.60 | 1.70 | 3.00 | 1.45 | 1.65 | 1.35 | 1.50 | 9.90 | 1.15 | 3.00 | ------ |
| 24 | 1.75 | 1.85 | 1.65 | 2.35 | 1.45 | 2.30 | 1.55 | 1.50 | 2.95 | 1.15 | 4.20 | ------ |
| 25 | 1.70 | 1.80 | 1.65 | 2.05 | 1.70 | 2.00 | 1.50 | 1.40 | 2.05 | 1.15 | 2.10 | ------ |
| 26 | 1.80 | 1.90 | 1.65 | 1.90 | 1.70 | 1.80 | 1.40 | 1.30 | 1.75 | 1.15 | 1.90 | ------ |
| 27 | 1.80 | 1.90 | 1.60 | 2.15 | 1.70 | 1.70 | 1.35 | 1.20 | 1.60 | 1.35 | 1.70 | ------ |
| 28 | 1.75 | 2.05 | 1.60 | 2.40 | 1.60 | 2.15 | 1.35 | 1.20 | 1.65 | 1.25 | 1.60 | ------ |
| 29 | 1.70 | -------- | 1.60 | 2.20 | 1.45 | 2.35 | 1.35 | 1.20 | 1.60 | 1.20 | 1.50 | ------ |
| 30 | 1.75 | -------- | 1.60 | 2.05 | 1.45 | 1.90 | 1.40 | 1.15 | 1.60 | 1.15 | 1.50 | ------ |
| 31 | 1.75 | -------- | -------- | -------- | 1.75 | -------- | 1.40 | 1.10 | -------- | 1.15 | ------ | ------ |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT LOWER WAGON BRIDGE NEAR MORGANTON, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | 1.6 | 2.55 | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 | 3.9 | 1.55 |
| 2 | 2.3 | 1.65 | 2.4 | 2.0 | 1.85 | 1.95 | 2.55 | 1.9 | 3.9 | 1.55 |
| 3 | 2.1 | 1.7 | 2.3 | 1.95 | 1.75 | 2.0 | 3.0 | 1.95 | 3.85 | 1.6 |
| 4 | 2.0 | 1.75 | 2.4 | 1.95 | 1.65 | 2.05 | 3.5 | 1.9 | 3.8 | 1.45 |
| 5 | 2.5 | 1.8 | 2.3 | 1.95 | 3.55 | 2.05 | 4.0 | 1.9 | 3.8 | 1.45 |
| 6 | 2.1 | 1.8 | 2.3 | 1.95 | 2.85 | 2.0 | 3.65 | 1.9 | 3.6 | 1.45 |
| 7 | 2.6 | 1.8 | 2.3 | 1.8 | 2.5 | 2.0 | 2.85 | 2.0 | 3.65 | 1.4 |
| 8 | 2.3 | 1.85 | 2.25 | 1.8 | 2.3 | 2.05 | 2.55 | 2.05 | 3.4 | 1.4 |
| 9 | 2.05 | 1.85 | 2.1 | 1.75 | 2.15 | 2.0 | 2.55 | 2.9 | 3.35 | 2.5 |
| 10 | 1.9 | 1.9 | 2.1 | 1.7 | 2.05 | 2.0 | 2.4 | 2.95 | 3.3 | 2.4 |
| 11 | 2.7 | 2.0 | 2.15 | 1.65 | 1.95 | 1.95 | 2.2 | 2.95 | 3.25 | 2.25 |
| 12 | 8.7 | 2.5 | 2.4 | 1.65 | 1.9 | 1.95 | 1.9 | 2.9 | 3.25 | 2.15 |
| 13 | 7.8 | 2.5 | 2.25 | 1.6 | 1.85 | 1.9 | 1.9 | 2.9 | 3.15 | 2.0 |
| 14 | 4.4 | 6.0 | 2.15 | 2.4 | 1.8 | 1.9 | 1.9 | 2.25 | 3.1 | 2.0 |
| 15 | 2.9 | 12.0 | 2.0 | 2.35 | 1.8 | 1.8 | 1.85 | 2.1 | 3.0 | 2.95 |
| 16 | 2.5 | 4.6 | 2.0 | 2.3 | 1.75 | 1.8 | 1.85 | 2.0 | 2.9 | 2.9 |
| 17 | 2.35 | 3.6 | 1.95 | 2.2 | 1.75 | 1.75 | 1.8 | 2.0 | 2.85 | 2.85 |
| 18 | 2.35 | 3.3 | 1.95 | 2.1 | 1.75 | 1.7 | 1.8 | 2.95 | 2.7 | 2.75 |
| 19 | 2.35 | 3.0 | 1.9 | 2.0 | 2.5 | 1.8 | 1.8 | 2.9 | 2.75 | 2.7 |
| 20 | 2.05 | 2.8 | 2.2 | 1.9 | 2.35 | 1.9 | 1.95 | 2.5 | 2.6 | 2.6 |
| 21 | 2.0 | 2.6 | 2.5 | 1.8 | 2.25 | 1.95 | 1.95 | 3.3 | 2.5 | 2.4 |
| 22 | 1.95 | 2.4 | 2.95 | 1.75 | 2.25 | 2.0 | 1.9 | 3.0 | 2.4 | 2.35 |
| 23 | 1.8 | 2.3 | 3.0 | 1.75 | 2.55 | 1.85 | 1.8 | 4.0 | 2.2 | 11.5 |
| 24 | 1.75 | 2.35 | 3.9 | 1.6 | 2.35 | 1.7 | 1.8 | 4.6 | 2.15 | 9.0 |
| 25 | 1.6 | 2.35 | 3.6 | 3.5 | 2.0 | 1.7 | 1.7 | 11.2 | 2.1 | 8.4 |
| 26 | 1.7 | 2.45 | 3.4 | 2.75 | 1.85 | 1.65 | 1.8 | 14.8 | 1.85 | 8.5 |
| 27 | 1.8 | 2.45 | 2.25 | 2.5 | 1.85 | 1.65 | 1.9 | 5.7 | 1.75 | 8.2 |
| 28 | 1.8 | 2.5 | 3.0 | 2.25 | 1.9 | 6.55 | 1.8 | 4.8 | 1.65 | 7.8 |
| 29 | 1.7 | 2.5 | 2.75 | 2.0 | 1.85 | 1.65 | 1.8 | 4.2 | 1.6 | 7.5 |
| 30 | 1.6 | ..... | 2.4 | 2.5 | 2.0 | 1.50 | 1.8 | 4.0 | 1.5 | 7.4 |
| 31 | 1.55 | ..... | 3.0 | ..... | 2.0 | ..... | 1.9 | 3.95 | 1.5 | 7.0 |

RATING TABLE FOR CATAWBA RIVER NEAR MORGANTON, N. C., FROM MAY 6, 1903, TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| .90 | 307 | 2.3 | 2,025 | 3.7 | 4,755 | 5.1 | 7,485 |
| 1.00 | 372 | 2.4 | 2,220 | 3.8 | 4,950 | 5.2 | 7,680 |
| 1.1 | 444 | 2.5 | 2,415 | 3.9 | 5,145 | 5.3 | 7,875 |
| 1.2 | 526 | 2.6 | 2,610 | 4.0 | 5,340 | 5.4 | 8,070 |
| 1.3 | 612 | 2.7 | 2,805 | 4.1 | 5,535 | 5.5 | 8,265 |
| 1.4 | 702 | 2.8 | 3,000 | 4.2 | 5,730 | 5.6 | 8,460 |
| 1.5 | 800 | 2.9 | 3,195 | 4.3 | 5,925 | 5.7 | 8,655 |
| 1.6 | 908 | 3.0 | 3,390 | 4.4 | 6,120 | 5.8 | 8,850 |
| 1.7 | 1,026 | 3.1 | 3,585 | 4.5 | 6,315 | 5.9 | 9,045 |
| 1.8 | 1,156 | 3.2 | 3,780 | 4.6 | 6,510 | 6.0 | 9,240 |
| 1.9 | 1,300 | 3.3 | 3,975 | 4.7 | 6,705 | 6.5 | 10,215 |
| 2.0 | 1,460 | 3.4 | 4,170 | 4.8 | 6,900 | 7.0 | 11,190 |
| 2.1 | 1,640 | 3.5 | 4,365 | 4.9 | 7,095 | | |
| 2.2 | 1,830 | 3.6 | 4,560 | 5.0 | 7,290 | | |

Above 7 feet gage height differences are 195 per tenth.

RATING TABLE FOR CATAWBA RIVER NEAR MORGANTON, N. C., FOR 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 400 | 1.40 | 740 | 1.80 | 1,200 | 2.20 | 1,835 |
| 1.10 | 470 | 1.50 | 840 | 1.90 | 1,340 | 2.30 | 2,025 |
| 1.20 | 550 | 1.60 | 950 | 2.00 | 1,490 | | |
| 1.30 | 640 | 1.70 | 1,070 | 2.10 | 1,655 | | |

The above table is based on discharge measurements made during 1903-1905. It is well defined between gage heights 1 foot and 2.7 feet. The table has been extended beyond these limits. Above gage height 2.3 feet the rating curve is a tangent, the difference being 195 per tenth. Above gage height 2.2 feet the table is the same as for 1904.

RATING TABLE FOR CATAWBA RIVER NEAR MORGANTON, N. C., FOR 1906 AND 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.10 | 470 | 2.30 | 1,780 | 3.50 | 3,360 | 5.40 | 6,490 |
| 1.20 | 550 | 2.40 | 1,900 | 3.60 | 3,500 | 5.60 | 6,880 |
| 1.30 | 640 | 2.50 | 2,030 | 3.70 | 3,650 | 5.80 | 7,280 |
| 1.40 | 740 | 2.60 | 2,160 | 3.80 | 3,800 | 6.00 | 7,700 |
| 1.50 | 840 | 2.70 | 2,290 | 3.90 | 3,950 | 7.00 | 9,800 |
| 1.60 | 950 | 2.80 | 2,420 | 4.00 | 4,100 | 8.00 | 12,000 |
| 1.70 | 1,060 | 2.90 | 2,550 | 4.20 | 4,400 | 9.00 | 14,300 |
| 1.80 | 1,180 | 3.00 | 2,680 | 4.40 | 4,710 | 10.00 | 16,600 |
| 1.90 | 1,300 | 3.10 | 2,810 | 4.60 | 5,040 | 11.00 | 19,000 |
| 2.00 | 1,420 | 3.20 | 2,940 | 4.80 | 5,390 | 12.00 | 21,400 |
| 2.10 | 1,540 | 3.30 | 3,080 | 5.00 | 5,750 | 13.00 | 23,900 |
| 2.20 | 1,660 | 3.40 | 3,220 | 5.20 | 6,110 | 14.00 | 26,400 |

NOTE.—The above table is based on discharge measurements made during 1903-1906 and is well defined below gage height 2 feet.

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER NEAR MORGANTON, N. C.

[Drainage area, 758 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| May 6-31 | 1,925 | 1,026 | 1,283 | 1.69 | 1.63 |
| June | 17,040 | 1,156 | 3,476 | 4.59 | 5.12 |
| July | 2,220 | 702 | 1,100 | 1.45 | 1.67 |
| August | 2,902 | 372 | 1,028 | 1.36 | 1.57 |
| September | 1,735 | 569 | 770 | 1.02 | 1.14 |
| October | 3,390 | 526 | 735 | .97 | 1.12 |
| November | 1,830 | 526 | 674 | .89 | .99 |
| December | 908 | 485 | 579 | .76 | .88 |
| 1904. | | | | | |
| January | 2,220 | 487 | 643 | 0.848 | 0.978 |
| February | 3,000 | 569 | 915 | 1.21 | 1.30 |
| March | 15,480 | 800 | 1,759 | 2.32 | 2.68 |
| April | 2,708 | 657 | 846 | 1.12 | 1.25 |
| May | 7,777 | 657 | 1,878 | 2.48 | 2.86 |
| June | 6,217 | 612 | 1,333 | 1.76 | 1.96 |
| July | 2,220 | 410 | 711 | .938 | 1.08 |
| August | 3,585 | 612 | 1,293 | 1.71 | 1.97 |
| September | 1,830 | 339 | 639 | .843 | .940 |
| October | 447 | 280 | 338 | .446 | .514 |
| November | 1,156 | 372 | 515 | .679 | .758 |
| December | 1,550 | 410 | 679 | .896 | 1.03 |
| The year | 15,480 | 280 | 962 | 1.27 | 17.32 |

ESTIMATED MONTHLY DISCHARGE OF CATAWBA RIVER NEAR MORGANTON, N. C.—*Continued.*

[Drainage area, 758 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 11,580 | 470 | 1,438 | 1.90 | 2.19 |
| February | 4,950 | 550 | 1,616 | 2.13 | 2.22 |
| March 1-24 | 1,930 | 840 | 1,212 | 1.60 | 1.43 |
| April 9-30 | 1,572 | 740 | 964 | 1.27 | 1.04 |
| May | 6,900 | 690 | 2,311 | 3.05 | 3.52 |
| June | 8,460 | 470 | 1,474 | 1.94 | 2.16 |
| July | 19,960 | 950 | 3,290 | 4.34 | 5.00 |
| August | 9,630 | 740 | 2,259 | 2.98 | 3.44 |
| September | 1,415 | 470 | 670 | .884 | .986 |
| October 1-26 | 4,170 | 435 | 710 | .937 | .906 |
| November 7-30 | 550 | 435 | 476 | .628 | .561 |
| December | 6,900 | 470 | 1,875 | 2.47 | 2.85 |
| 1906.* | | | | | |
| January | 24,200 | 1,000 | 3,360 | 4.43 | 5.11 |
| February | 3,080 | 1,360 | 1,730 | 2.28 | 2.37 |
| March | 4,550 | 1,180 | 1,870 | 2.47 | 2.85 |
| April | 2,810 | 1,180 | 1,680 | 2.22 | 2.48 |
| May | 1,780 | 790 | 1,180 | 1.56 | 1.80 |
| June | 16,100 | 740 | 2,680 | 3.54 | 3.95 |
| 1907. | | | | | |
| January 16-31 | 1,420 | 1,060 | 1,200 | 1.58 | 0.94 |
| February | 1,480 | 950 | 1,150 | 1.52 | 1.58 |
| March | 2,680 | 950 | 1,350 | 1.78 | 2.05 |
| April | 2,680 | 895 | 1,210 | 1.60 | 1.78 |
| May | 1,600 | 790 | 1,090 | 1.44 | 1.66 |
| June | 14,500 | 950 | 2,120 | 2.80 | 3.12 |
| July | 6,680 | 690 | 1,170 | 1.54 | 1.78 |
| August | 1,300 | 470 | 664 | .876 | 1.01 |
| September | 16,400 | 435 | 1,320 | 1.74 | 1.94 |
| October | 790 | 510 | 585 | .772 | 0.89 |
| November | 4,400 | 510 | 942 | 1.24 | 1.38 |
| December 1-21 | 7,700 | 690 | 1.670 | 2.20 | 1.72 |

*Values are rated as follows: January to April and June, good; May, excellent.

CATAWBA RIVER NEAR OLD FORT, N. C.

This station was established on May 24, 1907. It is located at a wooden wagon bridge ½ mile south of Old Fort, and ¼ of a mile above the mouth of Mill Creek.

The gage is a vertical rod in two sections, fastened to a special post in edge of the water, and to the left bank bridge bent.

Discharge measurements are made from the single-span wooden bridge and its short trestle approaches.

Both banks are liable to overflow and the bed is sand and liable to shift.

The bench mark is a large nail driven in the upstream end of the first floor beam from the left end of the bridge; elevation, 10.00 feet. The station was discontinued at the end of 1907.

ESTIMATED DISCHARGE MEASUREMENTS OF CATAWBA RIVER NEAR OLD FORT, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 24 | Warren E. Hall | 25 | 34 | 0.59 | 1.00 | 20 |
| May 25 | do | 25 | 35 | 0.63 | 1.03 | 22 |
| July 10 | do | 26 | 30 | 0.50 | 0.93 | 15 |
| July 10 | do | 26 | 30 | 0.50 | 0.93 | 15 |
| Sept. 25 | do | 27 | 35 | 0.40 | 1.00 | 14 |

DAILY GAGE HEIGHT, IN FEET, OF CATAWBA RIVER AT OLD FORT, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2.40 | 1.10 | 1.10 | 0.90 | 1.00 | 1.00 | 1.00 |
| 2 | | 2.10 | 1.00 | 1.10 | .90 | 1.00 | 1.00 | 1.20 |
| 3 | | 2.00 | 1.00 | 1.10 | .90 | 1.00 | 1.00 | 1.00 |
| 4 | | 2.40 | 1.00 | 1.10 | .90 | 1.00 | 1.00 | 1.00 |
| 5 | | 2.20 | 1.00 | 1.10 | .90 | 1.00 | 1.00 | 1.00 |
| 6 | | 2.10 | 1.00 | 1.10 | .90 | 1.00 | 1.00 | 1.00 |
| 7 | | 2.20 | 1.00 | 1.20 | 1.50 | 1.00 | 1.00 | .90 |
| 8 | | 2.10 | 1.00 | 1.10 | 1.40 | 1.00 | 1.00 | .90 |
| 9 | | 1.80 | 1.00 | 1.10 | 1.40 | 1.00 | 1.00 | .90 |
| 10 | | 1.60 | 1.00 | 1.10 | 1.30 | 1.00 | 1.00 | .90 |
| 11 | | 1.60 | 1.00 | 1.00 | 1.30 | 1.00 | 1.00 | .90 |
| 12 | | 1.40 | 1.10 | 1.00 | 1.20 | 1.00 | 1.00 | .80 |
| 13 | | 1.40 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | .80 |
| 14 | | 1.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.20 |
| 15 | | 1.40 | 1.10 | 1.10 | 1.00 | 1.00 | 1.00 | 1.60 |
| 16 | | 1.30 | 1.40 | 1.10 | 1.00 | 1.00 | 1.00 | 1.50 |
| 17 | | 1.20 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.40 |
| 18 | | 1.10 | 1.20 | 1.20 | 1.00 | 1.00 | 1.00 | 1.20 |
| 19 | | 1.10 | 1.10 | 1.10 | 1.00 | 1.00 | 1.00 | 1.10 |
| 20 | | 1.10 | 1.10 | 1.10 | 1.00 | 1.00 | 1.00 | 1.10 |
| 21 | | 1.10 | 1.10 | 1.00 | 1.00 | .90 | 1.20 | 1.10 |
| 22 | | 1.10 | 1.00 | 1.00 | 1.00 | .90 | 1.10 | 1.10 |
| 23 | | 1.10 | 1.00 | 1.00 | 2.20 | .90 | 1.00 | 1.10 |
| 24 | 1.00 | 1.20 | 1.00 | 1.00 | 1.60 | .90 | 1.50 | 1.00 |
| 25 | 1.10 | 1.10 | 1.20 | .90 | 1.00 | .90 | 1.40 | 1.00 |
| 26 | 1.10 | 1.10 | 1.10 | .90 | 1.00 | 1.30 | 1.30 | 1.00 |
| 27 | 1.20 | 1.10 | 1.10 | .90 | 1.00 | 1.30 | 1.20 | 1.00 |
| 28 | 1.30 | 1.10 | 1.00 | .90 | 1.40 | 1.20 | 1.10 | 2.20 |
| 29 | 1.30 | 1.10 | 1.00 | .90 | 1.20 | 1.20 | 1.00 | 2.00 |
| 30 | 1.20 | 1.10 | 1.10 | .90 | 1.00 | 1.20 | 1.00 | 1.80 |
| 31 | 1.20 | | 1.10 | .90 | | 1.10 | | 1.60 |

RATING TABLE FOR CATAWBA RIVER AT OLD FORT, N. C., FOR 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.80 | 8 | 0.95 | 16 | 1.10 | 27 | 1.25 | 41 |
| 0.85 | 10 | 1.00 | 19 | 1.15 | 31 | 1.30 | 46 |
| 0.90 | 13 | 1.05 | 23 | 1.20 | 36 | | |

### JOHN RIVER NEAR MORGANTON, N. C.

This station was established in connection with the hydrographic investigation of the southern Appalachian area. It was located on the highway bridge on the road from Morganton to Lenoir.

A wire gage was established, the gage rod being nailed to the guard rail on the downstream side of the bridge.

The section presented at this station is fairly good at all times, though for a part of the way the bottom is rough and rocky. The river banks are high and are never overflowed, the bed is permanent, and the course of the stream is straight for some distance above and below the station.

This station was abandoned on December 31, 1901, but since that time a number of discharge measurements have been made, mostly at low seasons, for the purpose of comparing the flow of the river with that of Catawba River at the Morganton station, where continuous records are kept.

The old gage had been removed, and the gage heights for all of the newer measurements were determined by measuring down from a bench mark on the bridge, the datum for which is different from that formerly used.

The bench mark is the upper edge of the end of a bar extending from the floor beam to a brace at the downstream end of the second floor beam from the left pier, 32 feet from the initial point for soundings. Its elevation is 30.00 feet above datum.

DISCHARGE MEASUREMENTS OF JOHN RIVER NEAR MORGANTON, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1900. | | | | | | |
| June 13 | E. W. Myers | | | | 2.64 | 465 |
| June 19 | ----do | | | | 3.50 | 1,202 |
| July 6 | ----do | | | | 2.63 | 511 |
| Aug. 8 | ----do | | | | 1.90 | 135 |
| Sept. 24 | ----do | | | | 1.90 | 148 |
| Nov. 7 | ----do | | | | 2.32 | 367 |
| 1904. | | | | | | |
| May 27 | B. S. Drane | 64 | 172 | 1.72 | 1.66 | 295 |
| July 21 | ----do | 61 | 163 | 1.26 | 1.44 | 205 |
| Aug. 19 | ----do | 62 | 170 | 1.40 | 1.53 | 238 |
| Sept. 29 | ----do | 61 | 135 | 1:13 | 1.31 | 153 |
| Dec. 16 | ----do | 61 | 146 | 1.00 | 1.27 | 146 |
| 1906. | | | | | | |
| Mar. 2 | Warren E. Hall | 63 | 182 | 1.99 | 1.80 | 362 |
| June 18 | ----do | 70 | 310 | 4.93 | 3.67 | 1,530 |

DAILY GAGE HEIGHT, IN FEET, OF JOHN RIVER NEAR MORGANTON, N. C., FOR 1900 AND 1901.

| 1900. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | 2.10 | | 1.80 | 2.30 | 2.32 |
| 2 | | | | | | | 2.60 | 2.03 | | 1.83 | 2.30 | |
| 3 | | | | | | | 2.55 | 2.00 | | 1.93 | 2.50 | 2.32 |
| 4 | | | | | | | 2.58 | 2.15 | | 2.43 | | 3.38 |
| 5 | | | | | | | 2.70 | 1.90 | | 2.38 | 2.60 | 3.20 |
| 6 | | | | | | | 2.58 | 1.88 | | 2.28 | 2.35 | 2.85 |
| 7 | | | | | | | 2.45 | 1.93 | | 2.10 | 2.35 | 2.67 |
| 8 | | | | | | | | 1.90 | | 2.03 | 2.30 | 2.62 |
| 9 | | | | | | | 2.38 | 1.90 | | 1.93 | 2.25 | 2.00 |
| 10 | | | | | | | 2.30 | 1.90 | 1.70 | 1.90 | 2.25 | 2.50 |
| 11 | | | | | | | 2.25 | 1.90 | 1.70 | 1.90 | | 2.35 |
| 12 | | | | | | | 2.25 | | 1.70 | 1 95 | 2.20 | 2.32 |
| 13 | | | | | | | 2.30 | 1.98 | 1.70 | 1.90 | 2.20 | 2.35 |
| 14 | | | | | | | 2.25 | 1.88 | 1.80 | | 2.15 | 2.30 |
| 15 | | | | | | | | 1.93 | 2.90 | 1.90 | 2.15 | 2.28 |
| 16 | | | | | | | 2.15 | 1.93 | | 1.88 | 2.10 | |
| 17 | | | | | | | 2.13 | 1.93 | 2.30 | 1.83 | 2.05 | 2.25 |
| 18 | | | | | | | 2.10 | 1.93 | 2.03 | 1.78 | | 2.20 |
| 19 | | | | | | 3.50 | 2.10 | | 1.95 | 1.73 | 2.12 | 2.18 |
| 20 | | | | | | 3.25 | 2.15 | | 1.90 | 1.73 | 2.15 | 2.22 |
| 21 | | | | | | 2.80 | 2.45 | | 1 90 | | 2.12 | 3.08 |
| 22 | | | | | | 3.28 | | | 1.90 | 1.88 | 2.10 | 2.92 |
| 23 | | | | | | 3.20 | 2.10 | | | 14.72 | 2.08 | |
| 24 | | | | | | | 2.28 | | 1.90 | 5.60 | 2.08 | 2.78 |
| 25 | | | | | | 3.75 | 2.35 | | 1.85 | 3.45 | | 2.68 |
| 26 | | | | | | 3.58 | 2.30 | | 1.83 | 2.98 | 4.55 | 2.48 |
| 27 | | | | | | 3.23 | 2.23 | | 1.83 | 2.70 | 3.00 | 2.32 |
| 28 | | | | | | 3.20 | 2.20 | | 1.80 | | 2.65 | 2.32 |
| 29 | | | | | | 2.95 | | | 1.83 | 2.45 | 2.52 | 2.28 |
| 30 | | | | | | 2.85 | 2.20 | | | 2.30 | 2.42 | |
| 31 | | | | | | | 2.13 | | | 2.30 | | 2.90 |
| 1901. | | | | | | | | | | | | |
| 1 | 2.62 | 2.23 | 2.20 | 3.05 | 2.95 | 3.63 | 3.45 | 2.60 | 5.15 | 3.08 | 2.52 | 2.35 |
| 2 | 2.52 | 2.28 | 2.15 | 8.85 | 2.90 | | 3.30 | 2.50 | 4.05 | 3.00 | 2.53 | 2.40 |
| 3 | 2.42 | | | 8.20 | 2.90 | 3.42 | 3.15 | 2.40 | 3.90 | 2.90 | 2.53 | 2.43 |
| 4 | 2.32 | 2.65 | 2.15 | 4.15 | 2.80 | 3.33 | 3.10 | | 3.80 | 2.80 | 2.53 | 2.43 |
| 5 | 2.30 | 2.33 | 2.13 | 3.90 | | 3.25 | 3.00 | 2.60 | 3.60 | 2.75 | 2.53 | 2.33 |
| 6 | 2.32 | 2.33 | 2.13 | 3.25 | 2.80 | 3.50 | 3.00 | 17.02 | 3.50 | 2.70 | 2.53 | 2.33 |
| 7 | 2.32 | 2.33 | 2.13 | | 2.73 | 3.70 | | 6.00 | 3.40 | 2.70 | 2.53 | 2.33 |
| 8 | 2.32 | 2.28 | 2.13 | 3.18 | 3.85 | 3.45 | 3.00 | 3.85 | 3.20 | 2.73 | 2.53 | 2.35 |
| 9 | 2.32 | 2.53 | 2.08 | 2.95 | 3.05 | | 3.00 | 3.38 | 3.20 | 2.72 | 2.53 | 2.40 |
| 10 | 2.37 | | | 2.70 | 3.08 | 3.13 | 2.93 | 3.05 | 3.20 | 2.70 | 2.53 | 3.50 |
| 11 | 2.80 | 2.43 | 3.25 | 2.68 | 3.05 | 3.08 | 2.90 | | 3.17 | 2.70 | 2.53 | 3.10 |
| 12 | 5.65 | 2.43 | 2.45 | 2.60 | | 3.00 | 2.95 | 3.27 | 3.17 | 2.68 | 2.50 | 2.90 |
| 13 | | 2.38 | 2.33 | 2.70 | 2.78 | 2.90 | 3.00 | 4.35 | 3.10 | 2.70 | 2.53 | 2.80 |
| 14 | 3.02 | 2.33 | 2.30 | | 2.70 | 8.95 | | 6.10 | 3.08 | 2.95 | 2.50 | 3.10 |
| 15 | 2.88 | 2.35 | 2.28 | 2.85 | 2.70 | 4.60 | 2.95 | 10.30 | | 2.80 | 2.50 | 19.00 |
| 16 | 2.68 | 2.35 | 2.25 | 2.68 | 2.63 | | 3.25 | 5.75 | 3.60 | 2.78 | 2.45 | 6.58 |
| 17 | 2.58 | | | 2.60 | 2.57 | 5.55 | 3.05 | 5.00 | 3.15 | 2.72 | 2.47 | 4.70 |
| 18 | 2.50 | 2.30 | 2.23 | 2.70 | 2.50 | 4.35 | 2.90 | | 3.10 | 2.68 | 2.48 | 3.75 |
| 19 | 2.48 | 2.33 | 2.20 | 5.20 | | 3.92 | 3.15 | 5.15 | 3.00 | 2.65 | 2.47 | 3.05 |
| 20 | | 2.28 | 2.20 | 17.70 | 3.18 | 4.45 | 3.05 | 4.48 | 3.00 | 2.60 | 2.48 | 2.95 |
| 21 | 2.43 | 2.28 | 2.72 | 6.60 | 10.25 | 4.27 | | 4.50 | 2.95 | 2.60 | 2.42 | 2.87 |
| 22 | 2.43 | 2.28 | 2.32 | 4.60 | 20.50 | 7.90 | 2.77 | 7.15 | | 2.60 | 2.43 | |
| 23 | 2.40 | 2.23 | 2.25 | 4.15 | 6.15 | | 2.70 | 6.11 | 2.90 | 2.60 | 2.47 | 2.90 |
| 24 | 2.33 | | | 3.70 | 4.80 | 4.70 | 2.70 | 4.40 | 2.87 | 2.55 | 2.50 | 2.90 |
| 25 | 2.33 | 2.20 | 2.90 | 3.53 | 4.40 | 4.15 | 2.63 | | 2.88 | 2.55 | 2.50 | 3.00 |
| 26 | 2.30 | 2.23 | 13.60 | 3.38 | | 3.80 | 2.60 | 4.55 | 2.80 | 2.50 | 2.43 | 3.42 |
| 27 | | 2.23 | 6.15 | 3.27 | 6.55 | 3.65 | 2.57 | 4.60 | 2.70 | 2.50 | 2.42 | 2.90 |
| 28 | 2.28 | 2.23 | 4.05 | | 5.00 | 3.60 | | 4.48 | 3.60 | 2.53 | 2.35 | 2.85 |
| 29 | 2.28 | | 3.35 | 3.08 | 4.20 | 3.50 | 2.60 | 4.43 | 3.10 | 2.50 | 2.38 | 15.00 |
| 30 | 2.33 | | 3.75 | 3.00 | 3.90 | | 8.60 | 6.15 | 3.15 | 2.55 | 2.30 | 9.00 |
| 31 | 2.33 | | | | | | 2.73 | 5.90 | | 2.50 | | 6.45 |

RATING TABLE FOR JOHN RIVER NEAR MORGANTON, N. C., FOR 1900 AND 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.7 | 80 | 3.6 | 1,075 | 5.5 | 2,215 | 7.4 | 3,355 |
| 1.8 | 110 | 3.7 | 1,135 | 5.6 | 2,275 | 7.5 | 3,415 |
| 1.9 | 140 | 3.8 | 1,195 | 5.7 | 2,335 | 7.6 | 3,475 |
| 2.0 | 185 | 3.9 | 1,255 | 5.8 | 2,395 | 7.7 | 3,535 |
| 2.1 | 233 | 4.0 | 1,315 | 5.9 | 2,455 | 7.8 | 3,595 |
| 2.2 | 281 | 4.1 | 1,375 | 6.0 | 2,515 | 7.9 | 3,655 |
| 2.3 | 329 | 4.2 | 1,435 | 6.1 | 2,575 | 8.0 | 3,715 |
| 2.4 | 377 | 4.3 | 1,495 | 6.2 | 2,635 | 8.1 | 3,775 |
| 2.5 | 425 | 4.4 | 1,555 | 6.3 | 2,695 | 8.2 | 3,835 |
| 2.6 | 475 | 4.5 | 1,615 | 6.4 | 2,755 | 8.3 | 3,895 |
| 2.7 | 535 | 4.6 | 1,675 | 6.5 | 2,815 | 8.4 | 3,955 |
| 2.8 | 595 | 4.7 | 1,735 | 6.6 | 2,875 | 8.5 | 4,015 |
| 2.9 | 655 | 4.8 | 1,795 | 6.7 | 2,935 | 8.6 | 4,075 |
| 3.0 | 715 | 4.9 | 1,855 | 6.8 | 2,995 | 8.7 | 4,135 |
| 3.1 | 775 | 5.0 | 1,915 | 6.9 | 3,055 | 8.8 | 4,195 |
| 3.2 | 835 | 5.1 | 1,975 | 7.0 | 3,115 | 8.9 | 4,255 |
| 3.3 | 895 | 5.2 | 2,035 | 7.1 | 3,175 | 9.0 | 4,315 |
| 3.4 | 955 | 5.3 | 2,095 | 7.2 | 3,235 | | |
| 3.5 | 1,015 | 5.4 | 2,155 | 7.3 | 3,295 | | |

ESTIMATED MONTHLY DISCHARGE OF JOHN RIVER NEAR MORGANTON, N. C.

[Drainage area, 213 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1900. | | | | | | |
| June* | ------ | --- | 869 | 4.08 | 1.82 | 8.26 |
| July | 535 | 233 | 330 | 1.55 | 1.79 | 4.95 |
| August† | ------ | --- | 169 | .79 | .53 | 1.22 |
| September‡ | ------ | --- | 177 | .83 | .65 | 2.49 |
| October | 7,735 | 95 | 567 | 2.71 | 3.13 | 9.83 |
| November | 1,645 | 209 | 391 | 1.84 | 2.05 | ----- |
| December | 955 | 281 | 455 | 2.14 | 2.47 | 4.74 |
| 1901. | | | | | | |
| January | 2,305 | 329 | 502 | 2.36 | 2.72 | 3.09 |
| February | 505 | 281 | 352 | 1.65 | 1.72 | 2.26 |
| March | 6,075 | 233 | 709 | 3.33 | 3.71 | 6.77 |
| April | 9,535 | 475 | 1,447 | 6.79 | 7.59 | 9.21 |
| May | 11,215 | 425 | 1,485 | 6.97 | 8.04 | 9.28 |
| June | 4,285 | 655 | 1,426 | 6.69 | 7.47 | 9.13 |
| July | 4,075 | 450 | 783 | 3.68 | 4.24 | 1.80 |
| August | 9,115 | 377 | 1,923 | 9.03 | 10.40 | 19.44 |
| September | 2,005 | 535 | 853 | 4.00 | 4.46 | 4.35 |
| October | 775 | 425 | 531 | 2.49 | 2.87 | .97 |
| November | 450 | 329 | 419 | 1.97 | 2.19 | .87 |
| December | 10,315 | 353 | 1,458 | 6.48 | 7.48 | 8.42 |
| The year | 11,215 | 233 | 991 | 4.62 | 62.89 | 75.59 |

*12 days. †18 days. ‡21 days.

JOHN RIVER AT COLLETTSVILLE, N. C.

This station was located at a foot log in the town.

The vertical gage was attached to the foot log supports, and to a tree.

This station was established on May 23, 1907, and was abandoned on July 31 of the same year.

DISCHARGE MEASUREMENTS OF JOHN RIVER AT COLLETTSVILLE, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 23 | Warren E. Hall | 51 | 54 | 1.81 | 1.00 | 98 |
| July 9 | do | 58 | 64 | 1.78 | 1.15 | 114 |

DAILY GAGE HEIGHT, IN FEET, OF JOHN RIVER AT COLLETTSVILLE, N. C., FOR 1907.

| Day. | May. | June. | July. | Day. | May. | June. | July. | Day. | May. | June. | July. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 7.50 | 1.30 | 12 | | 1.40 | 1.30 | 23 | 1.00 | 1.40 | 1.20 |
| 2 | | 3.60 | 1.40 | 13 | | 1.50 | 1.40 | 24 | 1.00 | 1.50 | 1.40 |
| 3 | | 2.20 | 1.40 | 14 | | 1.50 | 1.50 | 25 | 1.00 | 1.40 | 1.30 |
| 4 | | 1.80 | 1.50 | 15 | | 1.40 | 1.50 | 26 | 1.10 | 1.30 | 1.20 |
| 5 | | 1.60 | 1.40 | 16 | | 1.40 | 1.60 | 27 | 1.20 | 1.40 | 1.20 |
| 6 | | 1.40 | 1.40 | 17 | | 1.40 | 1.50 | 28 | 1.00 | 1.50 | 1.20 |
| 7 | | 1.30 | 1.30 | 18 | | 1.30 | 1.30 | 29 | 1.00 | 1.70 | 1.30 |
| 8 | | 1.20 | 1.30 | 19 | | 1.30 | 1.50 | 30 | 1.00 | 1.40 | 1.40 |
| 9 | | 2.00 | 1.20 | 20 | | 1.30 | 1.30 | 31 | 1.10 | | 1.20 |
| 10 | | 1.80 | 1.20 | 21 | | 1.40 | 1.30 | | | | |
| 11 | | 1.60 | 1.20 | 22 | | 1.30 | 1.20 | | | | |

LINVILLE RIVER NEAR BRIDGEWATER, N. C.

This station, one of the temporary stations established in connection with the hydrographic investigations of the southern Appalachian region, was established on July 3, 1900, and was located at Poole's mill, just above the ford on the road from Morganton to Marion, the gage being near the tailrace of the mill. The gagings were made about 200 feet below the site of the gage.

The bed of the river is extremely rough and rocky throughout its entire course, and a section perfectly suitable for making discharge measurements could not be discovered. There are no bridges, so that it was necessary to make the gagings by wading, and as the rise is considerable and the current velocity very great at high water no measurements of flood discharge were possible.

The bench mark to which the gage was referred is a cross cut in the rock cliff on the left bank of the stream, at the point of gaging; and the initial point of sounding was the end of a log which is sunk in the sand of the right bank. The drainage area above this station is rough, mountainous, and largely forest covered.

DISCHARGE MEASUREMENTS OF LINVILLE RIVER NEAR BRIDGEWATER, N. C.

| Date. | Gage Height (Feet). | Discharge (Second-feet). | Date. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1900. | | | 1900. | | |
| June 14 | 2.08 | 104 | August 17 | 1.85 | 78 |
| July 3 | 2.46 | 216 | September 21 | 2.20 | 55 |
| July 10 | 2.10 | 116 | | | |

DAILY GAGE HEIGHT, IN FEET, OF LINVILLE RIVER NEAR BRIDGEWATER, N. C.

| Day. | July. | Aug. | Sept. | Oct. | Day. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|
| 1900. | | | | | 1900. | | | | |
| 1 | ------ | 2.17 | 1.83 | 2.25 | 17 | 2.17 | 1.87 | 2.33 | ------ |
| 2 | ------ | 2.08 | 1.83 | 2.33 | 18 | 2.17 | 1.87 | 2.33 | ------ |
| 3 | 2.46 | 2.12 | 1.79 | 2.42 | 19 | 1.96 | 1.92 | 2.00 | ------ |
| 4 | 2.64 | 2.17 | 1.79 | 2.50 | 20 | 2.00 | 1.92 | 2.00 | ------ |
| 5 | 2.42 | 2.08 | 1.75 | 2.42 | 21 | 2.25 | 1.87 | 2.08 | ------ |
| 6 | 2.46 | 1.92 | 1.75 | 2.42 | 22 | 2.08 | 1.83 | 2.08 | ------ |
| 7 | 2.37 | 2.00 | 1.75 | 2.37 | 23 | 2.08 | 1.83 | 2.08 | ------ |
| 8 | 2.42 | 1.92 | 1.71 | 2.37 | 24 | 2.08 | 1.83 | 2.08 | ------ |
| 9 | 2.29 | 1.92 | 1.71 | 2.37 | 25 | 2.17 | 1.79 | 2.00 | ------ |
| 10 | 2.42 | 1.92 | 1.71 | 2.37 | 26 | 2.08 | 1.83 | 1.92 | ------ |
| 11 | 2.37 | 1.92 | 1.71 | 2.42 | 27 | 2.25 | 1.79 | 1.92 | ------ |
| 12 | 2.33 | 1.92 | 1.67 | 2.50 | 28 | 2.25 | 1.79 | 1.87 | ------ |
| 13 | 2.37 | 1.92 | 1.67 | 2.56 | 29 | 2.08 | 1.79 | 2.25 | ------ |
| 14 | 2.33 | 1.87 | 1.71 | 2.56 | 30 | 2.17 | 1.79 | 2.25 | ------ |
| 15 | 2.29 | 1.92 | 1.79 | ------ | 31 | 2.08 | 1.79 | ------ | ------ |
| 16 | 2.33 | 1.92 | 4.50 | ------ | | | | | |

RATING TABLE FOR LINVILLE RIVER NEAR BRIDGEWATER, N. C., FOR 1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.6 | 55 | 2.4 | 194 | 3.2 | 515 | 4.0 | 835 |
| 1.7 | 63 | 2.5 | 235 | 3.3 | 555 | 4.1 | 875 |
| 1.8 | 73 | 2.6 | 275 | 3.4 | 595 | 4.2 | 915 |
| 1.9 | 84 | 2.7 | 315 | 3.5 | 635 | 4.3 | 955 |
| 2.0 | 97 | 2.8 | 355 | 3.6 | 675 | 4.4 | 995 |
| 2.1 | 112 | 2.9 | 395 | 3.7 | 715 | 4.5 | 1,035 |
| 2.2 | 132 | 3.0 | 435 | 3.8 | 755 | | |
| 2.3 | 160 | 3.1 | 475 | 3.9 | 795 | | |

ESTIMATED MONTHLY DISCHARGE OF LINVILLE RIVER NEAR BRIDGEWATER, N. C.

[Drainage area, 86 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches. |
| 1900. | | | | | | |
| July | 295 | 90 | 154 | 1.79 | 2.06 | 3.75 |
| August | 122 | 73 | 83 | .96 | 1.11 | 3.20 |
| September | 1,035 | 59 | 122 | 1.41 | 1.57 | 2.79 |
| October* | ----- | -- | 191 | 2.22 | 1.16 | 11.54 |

*Fourteen days' record.

### LINVILLE RIVER NEAR FONTA FLORA, N. C.

The station at this place was established on May 20, 1907, and is located at the footbridge ½ mile east of Fonta Flora, and about 6 miles above the mouth of the river, which is a tributary of Catawba River.

The gage is a vertical rod in two sections, the lower of which is attached to a special post in the edge of the water, and the upper section is attached to a tree on the bank. The gage is located on the left side of the river, and about 1,200 feet above the footbridge.

Discharge measurements are made from the footbridge, and cannot be made at times of high water on account of overflowing of the banks.

The bench mark is a large nail driven in the birch tree to which the upper section of the gage is attached; elevation, 6.00 feet.

DISCHARGE MEASUREMENTS OF LINVILLE RIVER NEAR FONTA FLORA, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| May 21 | Warren E. Hall | 50 | 41 | 2.22 | 1.00 | *91 |
| May 21 | ----do | 50 | 41 | 2.22 | 1.00 | *91 |
| July 8 | ----do | 94 | 176 | 0.61 | 1.05 | †107 |
| Sept. 26 | ----do | 89 | 90 | 1.78 | 1.20 | ‡160 |
| Sept. 27 | ----do | 84 | 81 | 1.68 | 1.13 | ‡136 |

*Measurement at old bridge. †Wading measurement. ‡Measurement at new bridge.

DAILY GAGE HEIGHT, IN FEET, OF LINVILLE RIVER NEAR FONTA FLORA, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 4.00 | 1.10 | 1.00 | 0.80 | 1.10 | 0.80 | 1.10 |
| 2 | | 2.50 | 1.10 | 1.00 | .80 | 1.10 | 1.00 | 1.10 |
| 3 | | 1.80 | 1.20 | 1.00 | .80 | 1.10 | 1.00 | 1.10 |
| 4 | | 1.50 | 1.10 | .90 | .75 | 1.05 | 1.00 | 1.10 |
| 5 | | 1.50 | 1.10 | .90 | .75 | 1.05 | 1.00 | 1.10 |
| 6 | | 1.20 | 1.10 | .90 | .80 | .90 | 1.00 | 1.05 |
| 7 | | 1.20 | 1.10 | .90 | .80 | .90 | 1.00 | 1.05 |
| 8 | | 1.20 | 1.05 | .90 | .80 | .90 | 1.00 | 1.05 |
| 9 | | 1.50 | 1.05 | .90 | .80 | .90 | 1.00 | 1.10 |
| 10 | | 1.50 | 1.00 | .90 | .80 | .85 | 1.00 | 1.70 |
| 11 | | 1.20 | 1.00 | .90 | 1.20 | .85 | 1.00 | 1.60 |
| 12 | | 1.20 | 1.00 | .90 | 1.00 | .90 | 1.00 | 1.60 |
| 13 | | 1.30 | 1.00 | .90 | 1.00 | .90 | 1.00 | 1.60 |
| 14 | | 1.20 | 2.50 | .90 | 1.00 | .90 | 1.00 | 1.70 |
| 15 | | 1.20 | 2.30 | .80 | .80 | .90 | 1.00 | 1.60 |
| 16 | | 1.10 | 2.40 | .80 | .80 | .90 | 1.00 | 1.55 |
| 17 | | 1.10 | 1.10 | .80 | .80 | .90 | 1.00 | 1.50 |
| 18 | | 1.10 | 1.20 | 1.20 | .80 | .90 | 1.05 | 1.50 |
| 19 | | 1.10 | 1.20 | 1.10 | .80 | .90 | 1.10 | 1.40 |
| 20 | 1.00 | 1.00 | 1.10 | 1.00 | .80 | .80 | 1.10 | 1.30 |
| 21 | 1.00 | 1.10 | 1.15 | 1.00 | .80 | .80 | 1.20 | 1.20 |
| 22 | 1.00 | 1.10 | 1.10 | .90 | .80 | .80 | 1.25 | 1.20 |
| 23 | 1.00 | 1.10 | 1.10 | .90 | 4.00 | .80 | 1.30 | 3.00 |
| 24 | 1.00 | 1.20 | 1.10 | 1.20 | 2.00 | .80 | 1.30 | 2.50 |
| 25 | 1.00 | 1.20 | 1.10 | 1.00 | 1.50 | .80 | 1.25 | 1.70 |
| 26 | 1.10 | 1.20 | 1.10 | 1.00 | 1.10 | .80 | 1.20 | 1.50 |
| 27 | 1.10 | 1.20 | 1.00 | .90 | 1.10 | .85 | 1.20 | 1.50 |
| 28 | 1.00 | 1.50 | 1.00 | .90 | 1.15 | .80 | 1.15 | 1.55 |
| 29 | 1.00 | 1.20 | 1.00 | .90 | 1.20 | .80 | 1.15 | 1.55 |
| 30 | 1.00 | 1.20 | 1.05 | .80 | 1.10 | .80 | 1.10 | 1.80 |
| 31 | 1.00 | | 1.00 | .80 | | .80 | | 1.60 |

Daily Gage Height, in Feet, of Linville River at Fonta Flora, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.50 | 1.10 | 1.50 | 1.30 | 1.40 | 1.15 | 1.20 | 1.40 |
| 2 | 1.45 | 1.10 | 1.50 | 1.30 | 1.30 | 1.10 | 1.30 | 1.30 |
| 3 | 1.40 | 1.10 | 1.50 | 1.30 | 1.30 | 1.10 | 1.70 | 1.20 |
| 4 | 1.30 | 1.10 | 1.50 | 1.30 | 1.30 | 1.10 | 1.70 | 1.20 |
| 5 | 1.50 | 1.10 | 1.55 | 1.30 | 1.30 | 1.30 | 1.80 | 1.30 |
| 6 | 1.40 | 1.20 | 1.60 | 1.25 | 1.30 | 1.20 | 1.70 | 1.30 |
| 7 | 1.35 | 1.20 | 1.60 | 1.20 | 1.50 | 1.10 | 1.60 | 1.30 |
| 8 | 1.30 | 1.20 | 1.50 | 1.20 | 1.50 | 1.10 | 1.60 | 1.20 |
| 9 | 1.30 | 1.20 | 1.50 | 1.20 | 1.50 | 1.10 | 2.00 | 1.20 |
| 10 | 1.40 | 1.30 | 1.50 | 1.20 | 1.40 | 1.10 | 1.60 | 1.20 |
| 11 | 1.50 | 1.30 | 1.50 | 1.20 | 1.30 | 1.10 | 1.50 | 1.15 |
| 12 | 4.00 | 2.20 | 1.50 | 1.20 | 1.30 | 1.20 | 1.40 | 1.10 |
| 13 | 2.00 | 2.50 | 1.50 | 1.15 | 1.25 | 1.20 | 1.30 | 1.10 |
| 14 | 1.70 | 2.30 | 1.45 | 1.15 | 1.20 | 1.10 | 1.30 | 1.10 |
| 15 | 1.60 | 5.30 | 1.35 | 1.10 | 1.20 | 2.00 | 1.20 | 1.30 |
| 16 | 1.60 | 2.00 | 1.20 | 1.70 | 1.15 | 1.50 | 1.20 | 1.10 |
| 17 | 1.50 | 1.90 | 1.20 | 1.50 | 1.15 | 1.30 | 1.10 | 1.10 |
| 18 | 1.50 | 1.80 | 1.20 | 1.50 | 1.10 | 1.10 | 1.10 | 1.35 |
| 19 | 1.40 | 1.60 | 1.20 | 1.40 | 1.40 | 1.10 | 1.10 | 1.15 |
| 20 | 1.30 | 1.50 | 1.20 | 1.35 | 1.30 | 1.10 | 1.10 | 1.20 |
| 21 | 1.30 | 1.45 | 1.30 | 1.20 | 1.20 | 1.70 | 1.10 | 1.30 |
| 22 | 1.30 | 1.40 | 1.30 | 1.20 | 1.20 | 1.60 | 1.10 | 1.20 |
| 23 | 1.30 | 1.30 | 1.50 | 1.15 | 1.20 | 1.50 | 1.10 | 1.70 |
| 24 | 1.25 | 1.30 | 1.50 | 1.10 | 1.20 | 1.40 | 1.05 | 1.50 |
| 25 | 1.20 | 1.30 | 1.50 | 3.00 | 1.20 | 1.30 | 1.10 | 4.50 |
| 26 | 1.15 | 1.30 | 1.50 | 2.00 | 1.20 | 1.30 | 1.10 | 4.00 |
| 27 | 1.15 | 1.25 | 1.45 | 1.80 | 1.20 | 1.20 | 1.10 | ---- |
| 28 | 1.15 | 1.20 | 1.40 | 1.70 | 1.20 | 1.20 | 1.70 | ---- |
| 29 | 1.10 | 1.20 | 1.30 | 1.50 | 1.30 | 1.15 | 1.80 | ---- |
| 30 | 1.10 | ---- | 1.30 | 1.50 | 1.20 | 1.10 | 1.80 | ---- |
| 31 | 1.10 | ---- | 1.30 | ---- | 1.20 | ---- | 1.50 | ---- |

Rating Table for Linville River at Fonta Flora, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| .70 | 30 | .90 | 72 | 1.10 | 124 | 1.30 | 190 |
| .75 | 40 | .95 | 84 | 1.15 | 140 | ---- | --- |
| .80 | 50 | 1.00 | 96 | 1.20 | 156 | ---- | --- |
| .85 | 61 | 1.05 | 110 | 1.25 | 172 | ---- | --- |

MILL CREEK AT OLD FORT, N. C.

This station, located at the footbridge in Old Fort, was established on May 24, 1907.

The vertical gage is attached to a special timber which is driven in the river bank and spiked to a sycamore tree on the left bank, about 500 feet above the footbridge.

The right bank is high, but the left will overflow. Bed of stream is gravel and probably shifting.

The station was discontinued at the end of 1907.

DISCHARGE MEASUREMENTS OF MILL CREEK AT OLD FORT, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 24 | Warren E. Hall | 25 | 27 | 1.04 | 1.50 | 26 |
| May 25 | do | 25 | 28 | 1.25 | 1.52 | 35 |
| May 25 | do | 45 | 44 | 0.75 | 1.52 | 33 |
| July 10 | do | 25 | 25 | 1.12 | 1.50 | 28 |
| July 10 | do | 25 | 26 | 1.00 | 1.50 | 26 |
| Sept. 25 | do | 25 | 22 | 0.95 | 1.44 | 21 |

DAILY GAGE HEIGHT, IN FEET, OF MILL CREEK AT OLD FORT, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2.60 | 1.70 | 1.60 | 1.10 | 1.60 | 1.60 | 1.60 |
| 2 | | 2.40 | 1.70 | 1.60 | 1.10 | 1.60 | 1.60 | 1.80 |
| 3 | | 2.40 | 1.70 | 1.50 | 1.10 | 1.50 | 1.60 | 1.60 |
| 4 | | 1.20 | 1.70 | 1.50 | 1.10 | 1.50 | 1.60 | 1.60 |
| 5 | | 1.80 | 1.70 | 1.50 | 1.10 | 1.50 | 1.60 | 1.60 |
| 6 | | 2.20 | 1.70 | 1.50 | 1.10 | 1.50 | 1.60 | 1.50 |
| 7 | | 1.60 | 1.60 | 1.60 | 1.70 | 1.50 | 1.60 | 1.50 |
| 8 | | 1.60 | 1.60 | 1.50 | 1.40 | 1.50 | 1.60 | 1.50 |
| 9 | | 1.70 | 1.50 | 1.50 | 1.20 | 1.50 | 1.60 | 1.50 |
| 10 | | 1.70 | 1.50 | 1.50 | 1.10 | 1.50 | 1.60 | 1.40 |
| 11 | | 1.80 | 1.60 | 1.40 | 1.10 | 1.50 | 1.60 | 1.40 |
| 12 | | 1.80 | 1.40 | 1.40 | 1.10 | 1.50 | 1.60 | 1.40 |
| 13 | | 1.70 | 1.20 | 1.40 | 1.00 | 1.40 | 1.60 | 1.40 |
| 14 | | 1.70 | 1.20 | 1.40 | 1.00 | 1.40 | 1.60 | 1.80 |
| 15 | | 1.70 | 1.10 | 1.50 | 1.00 | 1.40 | 1.60 | 2.20 |
| 16 | | 1.70 | 1.40 | 1.40 | 1.00 | 1.40 | 1.60 | 2.00 |
| 17 | | 1.70 | 1.20 | 1.60 | 1.00 | 1.40 | 1.60 | 2.00 |
| 18 | | 1.70 | 1.60 | 1.60 | 1.00 | 1.40 | 1.60 | 1.80 |
| 19 | | 1.70 | 1.60 | 1.50 | 1.00 | 1.40 | 1.60 | 1.60 |
| 20 | | 1.70 | 1.60 | 1.50 | 1.00 | 1.40 | 1.60 | 1.60 |
| 21 | | 1.70 | 1.60 | 1.50 | 1.00 | 1.40 | 1.80 | 1.50 |
| 22 | | 1.70 | 1.50 | 1.40 | 2.20 | 1.40 | 1.70 | 1.40 |
| 23 | | 1.70 | 1.50 | 1.40 | 2.00 | 1.40 | 1.60 | 1.40 |
| 24 | 1.50 | 1.80 | 1.50 | 1.40 | 1.60 | 1.40 | 2.10 | 1.40 |
| 25 | 1.50 | 1.70 | 1.70 | 1.30 | 1.50 | 1.80 | 2.00 | 1.40 |
| 26 | 1.50 | 1.70 | 1.60 | 1.30 | 1.40 | 1.80 | 1.90 | 1.40 |
| 27 | 1.50 | 1.70 | 1.60 | 1.30 | 1.00 | 1.70 | 1.80 | 1.40 |
| 28 | 1.40 | 1.70 | 1.60 | 1.20 | 1.80 | 1.70 | 1.70 | 2.60 |
| 29 | 1.40 | 1.70 | 1.60 | 1.20 | 1.70 | 1.70 | 1.60 | 2.40 |
| 30 | 1.40 | 1.70 | 1.70 | 1.20 | 1.60 | 1.70 | 1.60 | 2.10 |
| 31 | 2.60 | | 1.70 | 1.10 | | 1.60 | | 1.80 |

### BROAD RIVER NEAR UREE, N. C.

This station was established on May 17, 1907, near Uree Post-office, and about 4 miles above the mouth of Cove Creek.

The vertical gage is attached to a special timber which is driven into the bed of the stream, and spiked to a birch tree, located on the right bank about 130 feet below the bridge.

Discharge measurements are made from the steel wagon bridge having a main span of 120 feet over water and a short span of 50 feet at the right bank.

Both banks are high and are not liable to overflow; the current is good, and the bed is partly rock and will probably not change much.

The bench mark is the top of the downstream end of the first-floor beam from the right bank; elevation 24.00 feet.

DISCHARGE MEASUREMENTS OF BROAD RIVER NEAR UREE, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| July 5 | Warren E. Hall | 103 | 113 | 1.12 | 1.52 | 127 |
| May 17 | ----do | 104 | 126 | 1.21 | 1.60 | 153 |
| Sept. 30 | ----do | 101 | 117 | 0.78 | 1.43 | 92 |

DAILY GAGE HEIGHT, IN FEET, OF BROAD RIVER NEAR UREE, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.30 | 1.50 | 1.60 | 1.40 | 1.40 | 1.30 | 1.40 |
| 2 | | 2.00 | 1.50 | 1.50 | 1.40 | 1.40 | 1.60 | 1.40 |
| 3 | | 1.90 | 1.50 | 1.40 | 1.50 | 1.40 | 1.40 | 1.40 |
| 4 | | 1.80 | 1.60 | 1.40 | 1.50 | 1.40 | 1.40 | 1.40 |
| 5 | | 1.80 | 1.50 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| 6 | | 1.70 | 1.50 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| 7 | | 1.70 | 1.50 | 1.40 | 1.40 | 1.40 | 1.35 | 1.40 |
| 8 | | 1.70 | 1.50 | 1.40 | 1.40 | 1.40 | 1.35 | 1.40 |
| 9 | | 1.70 | 1.50 | 1.50 | 1.40 | 1.40 | 1.35 | 1.60 |
| 10 | | 1.70 | 1.50 | 1.50 | 1.40 | 1.35 | 1.40 | 1.80 |
| 11 | | 1.80 | 1.60 | 1.60 | 1.50 | 1.35 | 1.40 | 1.60 |
| 12 | | 1.70 | 1.50 | 1.50 | 1.40 | 1.35 | 1.40 | 1.50 |
| 13 | | 1.60 | 1.50 | 1.60 | 1.35 | 1.35 | 1.40 | 1.50 |
| 14 | | 1.80 | 1.50 | 1.50 | 1.35 | 1.35 | 1.40 | 2.70 |
| 15 | | 1.70 | 1.50 | 1.40 | 1.35 | 1.35 | 1.40 | 1.90 |
| 16 | | 1.60 | 1.50 | 1.40 | 1.35 | 1.35 | 1.40 | 1.70 |
| 17 | 1.60 | 1.60 | 1.50 | 1.60 | 1.35 | 1.35 | 1.40 | 1.70 |
| 18 | 1.60 | 1.60 | 1.50 | 1.60 | 1.35 | 1.35 | 1.60 | 1.60 |
| 19 | 1.60 | 1.60 | 1.50 | 1.60 | 1.30 | 1.35 | 1.60 | 1.60 |
| 20 | 1.60 | 1.60 | 1.50 | 1.60 | 1.30 | 1.35 | 1.50 | 1.55 |
| 21 | 1.60 | 1.60 | 1.50 | 1.50 | 1.30 | 1.35 | 1.70 | 1.50 |
| 22 | 1.50 | 1.70 | 1.45 | 1.50 | 1.40 | 1.35 | 1.50 | 1.50 |
| 23 | 1.50 | 1.60 | 1.45 | 2.10 | 3.20 | 1.35 | 2.00 | 2.40 |
| 24 | 1.50 | 1.70 | 1.40 | 1.70 | 1.60 | 1.35 | 1.80 | 1.90 |
| 25 | 1.60 | 1.70 | 1.40 | 1.50 | 1.50 | 1.35 | 1.60 | 1.80 |
| 26 | 1.70 | 1.60 | 1.40 | 1.60 | 1.40 | 1.35 | 1.50 | 1.70 |
| 27 | 1.70 | 1.60 | 1.40 | 1.50 | 1.40 | 1.40 | 1.50 | 1.70 |
| 28 | 1.60 | 1.60 | 1.45 | 1.40 | 1.60 | 1.35 | 1.50 | 1.70 |
| 29 | 1.50 | 1.70 | 1.40 | 1.50 | 1.60 | 1.35 | 1.45 | 1.65 |
| 30 | 1.50 | 1.60 | 1.80 | 1.40 | 1.45 | 1.35 | 1.40 | 2.20 |
| 31 | 1.60 | | 1.50 | 1.40 | | 1.35 | | 2.00 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF BROAD RIVER NEAR UREE, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.60 | 1.75 | 2.00 | 1.70 |
| 2 | 1.70 | 1.80 | 1.80 | 1.80 | 1.75 | 1.75 | 1.70 | 1.70 | 2.00 | 1.70 |
| 3 | 1.70 | 1.80 | 1.80 | 1.75 | 1.75 | 1.80 | 2.00 | 1.70 | 2.00 | 1.70 |
| 4 | 1.70 | 1.70 | 1.80 | 1.75 | 1.70 | 1.75 | 1.80 | 1.70 | 2.00 | 1.70 |
| 5 | 1.70 | 1.60 | 1.80 | 1.70 | 1.70 | 1.80 | 2.10 | 1.70 | 2.20 | 1.70 |
| 6 | 1.70 | 1.70 | 1.80 | 1.70 | 1.80 | 1.80 | 2.20 | 2.00 | 2.00 | 1.70 |
| 7 | 1.80 | 1.65 | 1.80 | 1.70 | 2.50 | 1.80 | 2.00 | 1.90 | 2.20 | 1.70 |
| 8 | 1.70 | 1.65 | 1.75 | 1.70 | 2.00 | 1.70 | 1.80 | 2.90 | 2.00 | 1.70 |
| 9 | 1.70 | 1.65 | 1.80 | 1.80 | 1.90 | 1.70 | 2.50 | 2.00 | 2.00 | 2.20 |
| 10 | 1.60 | 1.80 | 1.80 | 1.80 | 1.80 | 1.70 | 2.10 | 2.00 | 1.90 | 2.40 |
| 11 | 3.20 | 2.00 | 1.80 | 1.70 | 1.80 | 1.80 | 1.80 | 1.90 | 1.90 | 1.90 |
| 12 | 3.40 | 2.50 | 1.80 | 1.70 | 1.75 | 1.70 | 1.80 | 1.80 | 1.85 | 1.90 |
| 13 | 2.40 | 2.45 | 1.75 | 1.70 | 1.70 | 1.80 | 1.80 | 1.80 | 1.85 | 1.80 |
| 14 | 2.10 | 2.40 | 1.75 | 1.70 | 1.70 | 1.75 | 1.80 | 1.80 | 1.85 | 1.80 |
| 15 | 2.00 | 3.90 | 1.75 | 2.10 | 1.70 | 1.75 | 1.75 | 1.80 | 1.80 | 1.75 |
| 16 | 1.90 | 2.40 | 1.75 | 1.90 | 1.70 | 1.70 | 1.70 | 1.80 | 1.80 | 1.75 |
| 17 | 1.90 | 2.10 | 1.70 | 1.80 | 1.80 | 1.70 | 1.70 | 2.00 | 1.80 | 1.75 |
| 18 | 1.80 | 2.00 | 1.70 | 1.80 | 1.80 | 1.70 | 1.70 | 1.80 | 1.80 | 1.70 |
| 19 | 1.80 | 2.00 | 1.70 | 1.80 | 2.10 | 1.70 | 1.70 | 1.75 | 1.80 | 1.70 |
| 20 | 1.80 | 1.90 | 2.00 | 1.80 | 1.90 | 1.70 | 1.65 | 1.75 | 1.80 | 1.70 |
| 21 | 1.70 | 1.90 | 1.90 | 1.75 | 1.80 | 1.75 | 1.65 | 1.80 | 1.75 | 1.70 |
| 22 | 1.70 | 1.90 | 1.80 | 1.75 | 1.80 | 1.70 | 1.70 | 1.80 | 1.75 | 2.00 |
| 23 | 1.70 | 1.90 | 2.10 | 1.75 | 1.90 | 1.75 | 2.90 | 2.30 | 1.75 | 4.90 |
| 24 | 1.60 | 1.80 | 2.20 | 1.70 | 1.90 | 1.70 | 1.80 | 2.50 | 1.75 | 2.80 |
| 25 | 1.60 | 1.80 | 2.10 | 2.40 | 1.80 | 1.70 | 1.75 | 9.20 | 1.75 | 2.40 |
| 26 | 1.70 | 1.90 | 1.90 | 2.00 | 1.80 | 1.65 | 1.90 | 4.50 | 1.70 | 2.10 |
| 27 | 1.70 | 1.90 | 1.90 | 1.90 | 2.00 | 1.65 | 1.90 | 2.70 | 1.80 | 2.00 |
| 28 | 1.60 | 1.90 | 1.90 | 1.80 | 1.80 | 1.60 | 2.10 | 2.40 | 1.90 | 2.40 |
| 29 | 1.60 | 1.80 | 1.85 | 1.80 | 1.80 | 1.60 | 2.20 | 2.20 | 1.80 | 2.70 |
| 30 | 1.60 | ------ | 1.80 | 1.90 | 1.90 | 1.60 | 1.90 | 2.20 | 1.70 | 2.20 |
| 31 | 1.60 | ------ | ------ | ------ | 1.80 | ------ | 1.80 | 2.10 | ------ | 2.20 |

RATING TABLE FOR BROAD RIVER NEAR UREE, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.30 | 50 | 1.50 | 118 | 1.70 | 186 | 1.90 | 254 |
| 1.35 | 67 | 1.55 | 135 | 1.75 | 203 | 1.95 | 271 |
| 1.40 | 84 | 1.60 | 152 | 1.80 | 220 | 2.00 | 288 |
| 1.45 | 101 | 1.65 | 169 | 1.85 | 237 | ---- | --- |

## SECOND BROAD RIVER NEAR LOGAN'S STORE, N. C.

The station here was established on May 16, 1907. It is about 2 miles south of Logan's Store, and 6 miles north of Rutherfordton, N. C.

The vertical gage is attached to a tree on the right bank about 100 yards below the bridge.

Discharge measurements are made from the wagon bridge, which is two steel spans supported by tubular piers.

The right bank will overflow, but the left will not. The current is swift and the bed is sandy.

The bench mark is the top of the downstream end of the first-floor beam from the left end of the bridge; elevation, 17.00 feet.

DISCHARGE MEASUREMENTS OF SECOND BROAD RIVER NEAR LOGAN'S STORE, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 16 | Warren E. Hall | 55 | 63 | 1.76 | 1.50 | 111 |
| July 6 | ----do | 55 | 71 | 2.03 | 1.63 | 144 |
| Sept. 28 | ----do | 52 | 67 | 1.92 | 1.57 | 129 |

DAILY GAGE HEIGHT, IN FEET, OF SECOND BROAD RIVER NEAR LOGAN'S STORE, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.60 | 1.40 | 1.30 | 1.20 | 1.30 | 1.20 | 1.40 |
| 2 | | 2.70 | 1.40 | 1.20 | 1.20 | 1.30 | 1.60 | 1.40 |
| 3 | | 2.30 | 1.50 | 1.20 | 1.40 | 1.30 | 1.40 | 1.30 |
| 4 | | 1.90 | 3.00 | 1.20 | 1.30 | 1.30 | 1.30 | 1.30 |
| 5 | | 1.70 | 2.00 | 1.20 | 1.20 | 1.30 | 1.20 | 1.30 |
| 6 | | 1.60 | 1.70 | 1.20 | 1.20 | 1.20 | 1.20 | 1.30 |
| 7 | | 1.60 | 1.50 | 1.20 | 1.20 | 1.20 | 1.20 | 1.30 |
| 8 | | 1.70 | 1.40 | 1.50 | 1.30 | 1.40 | 1.20 | 1.30 |
| 9 | | 1.60 | 1.30 | 1.30 | 1.30 | 1.20 | 1.20 | 1.60 |
| 10 | | 1.60 | 1.30 | 1.30 | 1.20 | 1.20 | 1.30 | 2.60 |
| 11 | | 1.80 | 1.60 | 1.30 | 1.70 | 1.20 | 1.30 | 1.80 |
| 12 | | 1.50 | 1.40 | 1.20 | 1.20 | 1.20 | 1.30 | 1.60 |
| 13 | | 1.50 | 1.40 | 1.20 | 1.20 | 1.20 | 1.20 | 1.50 |
| 14 | | 1.70 | 1.50 | 1.50 | 1.20 | 1.20 | 1.20 | 5.60 |
| 15 | | 1.50 | 1.40 | 1.20 | 1.20 | 1.20 | 1.20 | 3.30 |
| 16 | 1.50 | 1.40 | 1.30 | 1.30 | 1.20 | 1.20 | 1.20 | 2.30 |
| 17 | 1.50 | 1.40 | 1.30 | 1.30 | 1.20 | 1.20 | 1.20 | 1.90 |
| 18 | 1.40 | 1.40 | 1.30 | 1.40 | 1.20 | 1.20 | 1.20 | 1.80 |
| 19 | 1.40 | 1.40 | 1.30 | 1.30 | 1.20 | 1.20 | 1.40 | 1.70 |
| 20 | 1.40 | 1.30 | 1.30 | 1.20 | 1.10 | 1 20 | 1.30 | 1.60 |
| 21 | 1.40 | 1.50 | 1.20 | 1.40 | 1.10 | 1.20 | 2.40 | 1.60 |
| 22 | 1.40 | 1.40 | 1.20 | 1.40 | 1.10 | 1.20 | 1.80 | 1.60 |
| 23 | 1.40 | 1.50 | 1.20 | 1.80 | 2.90 | 1.20 | 2.20 | 9.00 |
| 24 | 1.40 | 1.60 | 1.20 | 1.70 | 1.90 | 1.20 | 3.80 | 3.30 |
| 25 | 1.40 | 1.50 | 1.20 | 1.40 | 1.50 | 1.20 | 2.10 | 2.20 |
| 26 | 1.60 | 1.50 | 1.20 | 1.30 | 1.30 | 1.20 | 1.70 | 1.90 |
| 27 | 2.00 | 1.40 | 1.20 | 1.30 | 1.30 | 1.40 | 1.50 | 1.70 |
| 28 | 1.50 | 1.50 | 1.20 | 1.20 | 1.50 | 1.30 | 1.50 | 1.70 |
| 29 | 1.40 | 1.80 | 1.20 | 1.20 | 1.50 | 1.20 | 1.50 | 1.60 |
| 30 | 1.40 | 1.60 | 1.50 | 1.20 | 1.30 | 1.20 | 1.50 | 2.90 |
| 31 | 1.50 | | 1.30 | 1.20 | | 1.20 | | 3.10 |

DAILY GAGE HEIGHT, IN FEET, OF SECOND BROAD RIVER AT LOGAN'S STORE, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.20 | 1.70 | 1.80 | 1.70 | 1.70 | 1.50 | 17 | 1.80 | 2.70 | 1.60 | 2.00 | 1.50 | 1.50 |
| 2 | 2.00 | 1.60 | 1.80 | 1.70 | 1.60 | 1.50 | 18 | 1.70 | 2.30 | 1.60 | 1.90 | 1.50 | 1.40 |
| 3 | 1.90 | 1.40 | 1.70 | 1.70 | 1.60 | 1.40 | 19 | 1.70 | 2.50 | 1.60 | 1.80 | 1.70 | 1.40 |
| 4 | 1.70 | 1.30 | 1.70 | 1.60 | 1.60 | 1.40 | 20 | 1.60 | 2.50 | 1.90 | 1.70 | 1.60 | 1.40 |
| 5 | 1.90 | 1.50 | 1.70 | 1.60 | 1.50 | 1.60 | 21 | 1.60 | 2.20 | 2.60 | 1.70 | 1.60 | 1.80 |
| 6 | 1.70 | 1.60 | 1.70 | 1.60 | 1.70 | 1.50 | 22 | 1.50 | 2.10 | 2.10 | 1.60 | 1.50 | 1.50 |
| 7 | 2.30 | 1.80 | 1.70 | 1.60 | 3.30 | 1.50 | 23 | 1.50 | 1.90 | 2.40 | 1.60 | 1.50 | 2.00 |
| 8 | 2.50 | 1.60 | 1.70 | 1.60 | 2.30 | 1.50 | 24 | 1.30 | 1.80 | 6.80 | 1.60 | 1.60 | 1.50 |
| 9 | 2.00 | 1.70 | 1.70 | 1.60 | 1.90 | 1.40 | 25 | 1.30 | 1.80 | 2.90 | 1.80 | 1.70 | 1.50 |
| 10 | 1.80 | 1.70 | 1.70 | 1.60 | 1.80 | 1.40 | 26 | 1.40 | 2.70 | 2.30 | 1.80 | 1.50 | 1.50 |
| 11 | 1.80 | 2.20 | 1.60 | 1.50 | 1.70 | 1.60 | 27 | 1.60 | 2.30 | 2.10 | 1.80 | 1.50 | 1.50 |
| 12 | 8.50 | 4.60 | 1.80 | 1.50 | 1.60 | 1.50 | 28 | 1.50 | 2.00 | 1.90 | 1.70 | 1.50 | 1.40 |
| 13 | 3.40 | 5.10 | 1.60 | 1.50 | 1.60 | 1.50 | 29 | 1.50 | 1.90 | 1.80 | 1.60 | 1.50 | 1.40 |
| 14 | 2.40 | 3.70 | 1.60 | 1.50 | 1.60 | 1.50 | 30 | 1.50 | ------ | 1.80 | 1.70 | 1.60 | 1.30 |
| 15 | 2.00 | 6.40 | 1.60 | 2.70 | 1.50 | 2.00 | 31 | 1.50 | ------ | 1.70 | ------ | 1.50 | -------- |
| 16 | 1.80 | 3.90 | 1.60 | 2.40 | 1.50 | 1.50 | | | | | | | |

RATING TABLE FOR SECOND BROAD RIVER AT LOGAN'S STORE, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 60 | 1.35 | 89 | 1.60 | 126 | 1.85 | 166 |
| 1.15 | 65 | 1.40 | 96 | 1.65 | 134 | 1.90 | 174 |
| 1.20 | 70 | 1.45 | 103 | 1.70 | 142 | 1.95 | 182 |
| 1.25 | 76 | 1.50 | 110 | 1.75 | 150 | 2.00 | 190 |
| 1.30 | 82 | 1.55 | 118 | 1.80 | 158 | ---- | --- |

## GREEN RIVER NEAR SALUDA, N. C.

The station here was established on May 9, 1907, though discharge measurements referred to a bench mark had been previously made. It is located at the lower steel bridge about 3 miles east of Hendersonville, N. C.

The chain gage box is attached to the downstream fencing of the bridge, in the first panel from the left end of the bridge. The bottom of the gage box is 18.77 feet above datum, and the chain length is 20.77 feet. Discharge measurements are made from the single-span steel bridge, which is supported by stone abutments.

The banks will probably not overflow. The current is rather slow at low water. The bed is partly rock and should not change much.

The bench mark is the top of the downstream end of the first-floor beam from the left end of the bridge; elevation, 16.00 feet.

DISCHARGE MEASUREMENTS OF GREEN RIVER NEAR SALUDA, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1905. | | | | | | |
| Nov. 13 | Warren E. Hall | 45 | 87 | 0.84 | 1.65 | 73 |
| Nov. 13 | ----do | 45 | 88 | 0.82 | 1.65 | 72 |
| 1906. | | | | | | |
| June 13 | Warren E. Hall | 45 | 184 | 3.57 | 3.30 | 657 |
| Sept. 14 | ----do | 45 | 125 | 1.25 | 1.14 | 156 |
| Sept. 14 | ----do | 45 | 125 | 1.27 | 1.14 | 159 |
| 1907. | | | | | | |
| April 4 | Warren E. Hall | 45 | 104 | 0.95 | 1.85 | 99 |
| April 4 | ----do | 45 | 104 | 0.93 | 1.85 | 97 |
| May 9 | ----do | 45 | 104 | 1.23 | 1.98 | 128 |
| July 13 | ----do | 45 | 110 | 0.77 | 1.71 | 85 |
| July 13 | Frank P. Thomas | 45 | 110 | 0.76 | 1.70 | 84 |
| Aug. 17 | Warren E. Hall | 45 | 101 | 0.58 | 1.54 | 59 |
| Aug. 17 | ----do | 45 | 100 | 0.58 | 1.54 | 58 |
| Sept. 20 | ----do | 45 | 96 | 0.42 | 1.40 | 40 |
| Dec. 10 | ----do | 45 | 171 | 2.96 | 3.16 | 506 |
| Dec. 10 | ----do | 45 | 168 | 2.89 | 3.12 | 486 |

DAILY GAGE HEIGHT, IN FEET, OF GREEN RIVER NEAR SALUDA, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---- | 3.10 | 1.90 | 1.50 | 1.40 | 1.60 | 1.40 | 1.80 |
| 2 | ---- | 2.20 | 1.80 | 1.50 | 1.40 | 1.60 | 2.10 | 1.80 |
| 3 | ---- | 2.10 | 1.80 | 1.50 | 1.60 | 1.60 | 1.80 | 1.80 |
| 4 | ---- | 2.00 | 1.80 | 1.50 | 1.70 | 1.50 | 1.60 | 1.70 |
| 5 | ---- | 1.90 | 1.80 | 1.50 | 1.50 | 1.50 | 1.60 | 1.60 |
| 6 | ---- | 1.90 | 1.80 | 1.50 | 1.50 | 1.50 | 1.60 | 2.00 |
| 7 | ---- | 1.80 | 1.70 | 1.50 | 1.50 | 1.50 | 1.50 | 1.70 |
| 8 | ---- | 1.90 | 1.70 | 1.60 | 1.50 | 2.10 | 1.50 | 1.70 |
| 9 | 2.00 | 1.80 | 1.70 | 1.50 | 1.50 | 1.60 | 1.50 | 2.30 |
| 10 | 1.90 | 3.20 | 1.70 | 1.50 | 1.50 | 1.60 | 1.60 | 3.80 |
| 11 | 2.00 | 2.10 | 1.80 | 1.50 | 1.80 | 1.50 | 1.60 | 2.50 |
| 12 | 1.90 | 2.00 | 1.70 | 1.60 | 1.50 | 1.50 | 1.50 | 2.20 |
| 13 | 1.90 | 1.90 | 1.80 | 1.50 | 1.40 | 1.50 | 1.50 | 2.10 |
| 14 | 1.90 | 1.90 | 1.70 | 1.60 | 1.40 | 1.50 | 1.50 | 4.50 |
| 15 | 2.00 | 1.80 | 1.70 | 1.50 | 1.40 | 1.50 | 1.50 | 3.00 |
| 16 | 1.90 | 1.80 | 1.70 | 1.70 | 1.50 | 1.50 | 1.50 | 2.60 |
| 17 | 1.80 | 1.80 | 1.60 | 1.60 | 1.50 | 1.50 | 1.50 | 2.40 |
| 18 | 1.80 | 1.80 | 1.70 | 1.70 | 1.50 | 1.50 | 2.00 | 2.30 |
| 19 | 1.80 | 1.80 | 1.70 | 1.60 | 1.40 | 1.50 | 1.90 | 2.20 |
| 20 | 1.80 | 1.70 | 1.80 | 1.60 | 1.40 | 1.50 | 1.80 | 2.10 |
| 21 | 1.80 | 1.80 | 1.60 | 1.50 | 1.40 | 1.50 | 3.00 | 2.10 |
| 22 | 1.80 | 1.90 | 1.60 | 1.60 | 1.40 | 1.50 | 2.30 | 2.10 |
| 23 | 1.80 | 1.90 | 1.60 | 1.70 | 4.00 | 1.50 | 2.40 | 4.60 |
| 24 | 1.80 | 1.80 | 1.50 | 1.80 | 2.00 | 1.50 | 3.10 | 2.90 |
| 25 | 1.80 | 1.80 | 1.60 | 1.60 | 1.70 | 1.50 | 2.30 | 2.60 |
| 26 | 2.50 | 1.70 | 1.60 | 1.50 | 1.60 | 1.50 | 2.10 | 2.40 |
| 27 | 2.00 | 1.70 | 1.60 | 1.50 | 1.60 | 1.50 | 2.00 | 2.40 |
| 28 | 1.80 | 1.80 | 1.60 | 1.50 | 1.70 | 1.50 | 1.90 | 2.30 |
| 29 | 1.80 | 3.50 | 1.70 | 1.50 | 1.90 | 1.50 | 1.90 | 2.20 |
| 30 | 1.90 | 2.00 | 1.70 | 1.50 | 1.70 | 1.50 | 1.80 | 3.60 |
| 31 | 1.90 | ---- | 1.60 | 1.40 | ---- | 1.50 | ---- | 2.70 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF GREEN RIVER NEAR SALUDA, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.50 | 2.40 | 2.40 | 2.20 | 2.30 | 1.90 | 1.70 | 1.80 | 2.30 | 1.90 |
| 2 | 2.40 | 2.10 | 2.40 | 2.20 | 2.20 | 1.90 | 1.80 | 1.80 | 2.30 | 1.90 |
| 3 | 2.30 | 2.20 | 2.40 | 2.20 | 2.20 | 2.10 | 2.20 | 1.80 | 2.20 | 1.80 |
| 4 | 2.30 | 2.10 | 2.40 | 2.20 | 2.20 | 2.00 | 2.00 | 1.70 | 2.20 | 1.90 |
| 5 | 2.40 | 2.10 | 2.30 | 2.10 | 2.20 | 2.60 | 2.40 | 2.00 | 2.60 | 1.80 |
| 6 | 2.30 | 2.20 | 2.30 | 2.20 | 2.20 | 2.10 | 2.40 | 2.20 | 2.50 | 1.80 |
| 7 | 2.40 | 2.20 | 2.30 | 2.10 | 3.10 | 2.00 | 2.10 | 2.00 | 2.30 | 1.80 |
| 8 | 2.30 | 2.10 | 2.20 | 2.10 | 2.40 | 2.00 | 2.00 | 1.90 | 2.20 | 1.80 |
| 9 | 2.20 | 2.10 | 2.20 | 2.10 | 2.30 | 1.90 | 2.30 | 1.90 | 2.20 | 2.00 |
| 10 | 2.20 | 2.20 | 2.20 | 2.10 | 2.20 | 1.90 | 2.20 | 2.00 | 2.20 | 2.50 |
| 11 | 2.20 | 2.30 | 2.20 | 2.10 | 2.20 | 1.90 | 1.90 | 1.90 | 2.10 | 2.00 |
| 12 | 3.80 | 3.10 | 2.40 | 2.00 | 2.20 | 1.90 | 1.90 | 1.80 | 2.10 | 1.90 |
| 13 | 2.90 | 3.40 | 2.20 | 2.00 | 2.10 | 1.90 | 1.80 | 1.70 | 2.10 | 1.90 |
| 14 | 2.70 | 3.10 | 2.20 | 2.00 | 2.10 | 1.90 | 1.80 | 1.70 | 2.10 | 1.90 |
| 15 | 2.90 | 7.60 | 2.20 | 2.90 | 2.10 | 2.10 | 1.80 | 1.70 | 2.00 | 1.90 |
| 16 | 2.50 | 3.60 | 2.20 | 2.70 | 2.10 | 1.90 | 2.00 | 1.70 | 2.00 | 1.90 |
| 17 | 2.40 | 3.10 | 2.10 | 2.50 | 2.20 | 1.90 | 1.95 | 2.00 | 2.00 | 1.80 |
| 18 | 2.40 | 2.90 | 2.10 | 2.40 | 2.30 | 1.90 | 1.80 | 1.80 | 2.00 | 1.80 |
| 19 | 2.30 | 2.90 | 2.10 | 2.30 | 2.20 | 1.80 | 1.80 | 1.80 | 2.00 | 1.80 |
| 20 | 2.30 | 2.80 | 2.30 | 2.20 | 2.10 | 1.80 | 1.70 | 2.00 | 2.00 | 1.80 |
| 21 | 2.30 | 2.80 | 2.40 | 2.20 | 2.10 | 1.80 | 1.70 | 1.90 | 2.00 | 1.80 |
| 22 | 2.30 | 2.60 | 2.30 | 2.20 | 2.10 | 1.80 | 1.80 | 2.50 | 2.00 | 1.80 |
| 23 | 2.20 | 2.50 | 2.50 | 2.20 | 2.10 | 1.80 | 3.10 | 2.90 | 2.00 | 4.00 |
| 24 | 2.10 | 2.50 | 3.20 | 2.10 | 2.00 | 1.80 | 1.90 | 2.80 | 1.90 | 2.80 |
| 25 | 2.10 | 2.50 | 2.70 | 3.20 | 2.00 | 1.90 | 1.80 | 7.40 | 1.90 | 2.40 |
| 26 | 2.10 | 2.80 | 2.50 | 2.50 | 2.00 | 1.80 | 1.80 | 4.40 | 1.90 | 2.20 |
| 27 | 2.30 | 2.60 | 2.40 | 2.40 | 2.00 | 1.70 | 1.80 | 3.20 | 2.00 | 2.00 |
| 28 | 2.20 | 2.50 | 2.40 | 2.40 | 2.00 | 1.70 | 1.80 | 2.80 | 2.20 | 2.20 |
| 29 | 2.10 | 2.50 | 2.30 | 2.30 | 2.00 | 1.70 | 1.90 | 2.60 | 2.00 | 2.80 |
| 30 | 2.10 | ------- | 2.30 | 2.40 | 2.00 | 1.70 | 2.10 | 2.50 | 1.90 | 2.70 |
| 31 | 2.10 | ------- | 2.30 | ------- | 1.90 | ------- | 1.90 | 2.40 | ------- | 2.40 |

RATING TABLE FOR GREEN RIVER NEAR SALUDA, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.40 | 40 | 1.65 | 73 | 1.90 | 112 | 2.15 | 166 |
| 1.45 | 46 | 1.70 | 80 | 1.95 | 122 | 2.20 | 178 |
| 1.50 | 52 | 1.75 | 88 | 2.00 | 132 | 2.25 | 190 |
| 1.55 | 59 | 1.80 | 96 | 2.05 | 142 | | |
| 1.60 | 66 | 1.85 | 104 | 2.10 | 154 | | |

## RIVER PROFILE SURVEYS IN THE CATAWBA RIVER DRAINAGE BASIN.

### SURVEY OF CATAWBA RIVER.

Catawba River was surveyed from the Halltown road crossing, near Marion, N. C., down the river to the mouth of Johnsons Mill Creek, near Connelly Springs, N. C.—a distance of 45 miles. A line of flying levels was run in connection with the plane-table stadia traverse, which was on the scale of 1:22,500, based on a permanent bench mark of the United States Geological Survey at Marion, N. C. This flying line is connected with a precise line along the Southern Railway, run by the Geological Survey in 1896, at Bridgewater, Glen Alpine, Morganton, and Connelly Springs, at each of which points there is a permanent

bench mark. There were only three temporary bench marks set along the river, but there were 160 water-surface elevations recorded, all of which were adjusted to the mean reading on the gage established at the upper bridge near Morganton. The work was done in July, August, and September, 1903, by R. C. Howard and S. A. Obenshain, under the direction of W. C. Hall, topographer.

In the stretch of river surveyed there is a total fall of 243 feet. At present there is only one crude dam—at John River Road Ford, where there is a fall of 4 feet, supplying power to operate Hunter's gristmill. There is a dam site near Connelly Ford. The combined fall of two shoals about half a mile apart is 12.3 feet, and a long, rocky island in the lower part of the shoal would somewhat facilitate the construction of a dam. At this point the river is about 200 feet wide, with rocky cliffs on both banks. The river bottom is very fertile, the principal crops being corn and hay.

ELEVATIONS ON CATAWBA RIVER BETWEEN HALLTOWN ROAD AND CONNELLY SPRINGS, N. C.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Halltown Road Ford, head of island, head of shoals, surface of water | *1,189 |
| .1 | Foot of shoals, surface of water | 1,187 |
| .2 | Head of shoals, surface of water | 1,187 |
| .2 | Foot of shoals, surface of water | 1,184 |
| .5 | Head of shoals, surface of water | 1,184 |
| .7 | Foot of shoals, surface of water | 1,179 |
| 1.1 | Mouth of North Fork, 0.5 mile above, head of shoals, surface of water | 1,179 |
| 1.1 | Foot of shoals, surface of water | 1,177 |
| 1.3 | Head of shoals, surface of water | 1,177 |
| 1.3 | Foot of shoals, surface of water | 1,175 |
| 1.7 | Head of shoals, surface of water | 1,174 |
| 1.8 | Foot of shoals, surface of water | 1,172 |
| 2.1 | Head of shoals, surface of water | 1,170 |
| 2.3 | Foot of shoals, surface of water | 1,167 |
| 2.4 | Head of shoals, surface of water | 1,166 |
| 3.2 | Foot of shoals, surface of water | 1,157 |
| 3.4 | Head of shoals, surface of water | 1,156 |
| 3.4 | Foot of shoals, surface of water | 1,154 |
| 4 | Head of shoals, surface of water | 1,153 |
| 4.2 | North bank of island, foot of shoals, surface of water | 1,146 |
| 4.4 | Head of island, head of shoals, surface of water | 1,146 |
| 4.4 | Foot of island, foot of shoals, surface of water | 1,141 |
| 4.7 | Head of shoals, surface of water | 1,140 |
| 4.7 | Foot of shoals, surface of water | 1,137 |
| 4.8 | Head of shoals, surface of water | 1,137 |
| 4.8 | Foot of shoals, surface of water | 1,134 |
| 5.1 | Head of shoals, surface of water | 1,134 |
| 5.1 | Foot of shoals, surface of water | 1,133 |
| 5.3 | Head of shoals, surface of water | 1,133 |
| 5.3 | Foot of shoals, surface of water | 1,131 |
| 5.4 | Head of shoals, surface of water | 1,131 |
| 5.4 | Foot of shoals, surface of water | 1,130 |
| 5.7 | Connelly Ford, head of shoals, surface of water | 1,130 |
| 5.8 | Foot of shoals, surface of water | 1,127 |
| 6 | Head of shoals, surface of water | 1,126 |
| 6 | Foot of shoals, surface of water | 1,126 |
| 6.1 | Head of shoals, surface of water | 1,125 |
| 6.1 | Small island in shoals, foot of shoals, surface of water | 1,124 |
| 6.6 | Between large islands, head of shoals, surface of water | 1,124 |
| 6.7 | Foot of islands, foot of shoals, surface of water | 1,122 |
| 6.9 | At head of broad flood channel, head of shoals, surface of water | 1,122 |

*Adjusted to bench mark at Marion (McDowell County) courthouse; west face, at south end of portico, bronze tablet marked "1438"; elevation, 1,436.857 feet.

ELEVATIONS ON CATAWBA RIVER BETWEEN HALLTOWN ROAD AND CONNELLY SPRINGS, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 7 | Foot of shoals, surface of water | 1,119 |
| 7.3 | At foot of broad channel, head of shoals, surface of water | 1,119 |
| 7.3 | Foot of shoals, surface of water | 1,116 |
| 7.5 | Head of shoals, surface of water | 1,116 |
| 7.5 | Foot of shoals, surface of water | 1,115 |
| 7.8 | Head of shoals, surface of water | 1,115 |
| 7.8 | Foot of shoals, surface of water | 1,114 |
| 8.2 | Head of shoals, surface of water | 1,113 |
| 8.5 | Foot of shoals, surface of water | 1,108 |
| 8.5 | Head of shoals, surface of water | 1,108 |
| 8.7 | Foot of shoals, surface of water | 1,105 |
| 9.2 | John River Road, head of shoals, surface of water | 1,103 |
| 9.2 | Foot of shoals, surface of water | 1,102 |
| 9.8 | Just below ford, head of shoals, surface of water | 1,101 |
| 9.8 | Foot of shoals, surface of water | 1,099 |
| 10 | Head of island, head of shoals, surface of water | 1,099 |
| 10.2 | Foot of shoals, surface of water | 1,094 |
| 10.8 | Head of shoals at head of island, surface of water | 1,094 |
| 10.9 | Foot of island, foot of shoals, surface of water | 1,092 |
| 11.1 | Head of shoals, surface of water | 1,092 |
| 11.1 | Foot of shoals, surface of water | 1,089 |
| 11.6 | Just above dam, surface of water | 1,089 |
| 11.6 | Below ford, foot of shoals, surface of water | 1,084 |
| 12 | Head of shoals, surface of water | 1,083 |
| 12 | Foot of shoals, surface of water | 1,079 |
| 12.4 | Head of shoals, surface of water | 1,079 |
| 12.4 | Foot of shoals, surface of water | 1,079 |
| 13 | Head of shoals, surface of water | 1,078 |
| 13.1 | Foot of shoals, surface of water | 1,075 |
| 13.3 | Head of shoals, surface of water | 1,075 |
| 13.3 | Foot of shoals, surface of water | 1,074 |
| 13.5 | Below head of island, head of shoals, surface of water | 1,074 |
| 13.7 | Foot of two islands, foot of shoals, surface of water | 1,070 |
| 13.9 | Head of shoals, surface of water | 1,070 |
| 13.9 | Foot of shoals, surface of water | 1,070 |
| 14.4 | Head of shoals, surface of water | 1,069 |
| 14.4 | Foot of shoals, surface of water | 1,069 |
| 14.5 | Bridgewater, in front of station, top of north rail | *1,095.7 |
| 14.5 | Head of shoals, surface of water | 1,068 |
| 14.6 | Foot of shoals, surface of water | 1,068 |
| 15 | Head of shoals, surface of water | 1,067 |
| 15 | Foot of shoals, surface of water | 1 066 |
| 15.1 | Just above head of shoals, surface of water | 1,066 |
| 15.2 | Head of shoals, surface of water | 1,065 |
| 15.2 | Foot of shoals, surface of water | 1,062 |
| 15.4 | Head of shoals, surface of water | 1,062 |
| 15.5 | Foot of shoals, surface of water | 1,062 |
| 15.8 | Head of shoals, surface of water | 1,061 |
| 15.9 | Foot of shoals, surface of water | 1,061 |
| 16.4 | Head of shoals, surface of water | 1,058 |
| 16.8 | Foot of shoals, surface of water | 1,056 |
| 17 | Head of shoals, surface of water | 1,054 |
| 17.2 | Foot of shoals, surface of water | 1,054 |
| 18 | Just above head of upper island, head of shoals, surface of water | 1,051 |
| 18.1 | Between island and south bank of river, foot of shoals, surface of water | 1,049 |
| 18.2 | Mouth of Linville River, below ford, at head of island and south bank, head of shoals, surface of water | 1,048 |
| 18.4 | Between island and south bank, foot of shoals, surface of water | 1,046 |
| 18.7 | Head of small island, head of shoals, surface of water | 1,045 |
| 18.7 | Center of island, foot of shoals, surface of water | 1,045 |
| 18.9 | Head of two small islands, head of shoals, surface of water | 1,045 |
| 19.1 | Foot of shoals, surface of water | 1,040 |

*Bridgewater 0.4 mile east of; bridge seat at west end of Muddy Creek Bridge, 2.75 feet south of south rail, copper bolt marked "U. S. G. S., 1091"; elevation, 1,089.549 feet.

ELEVATIONS ON CATAWBA RIVER BETWEEN HALLTOWN ROAD AND CONNELLY SPRINGS, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 19.6 | Long, narrow island along north bank, head of short shoal, surface of water | 1,039 |
| 19.8 | Head of shoals, surface of water | 1,038 |
| 19.8 | Foot of shoals, surface of water | 1,037 |
| 20.1 | Above ford, head of shoals, surface of water | 1,036 |
| 20.3 | Head of shoals, surface of water | 1,035 |
| 20.4 | Foot of shoals, surface of water | 1,033 |
| 20.9 | Head of shoals, surface of water | 1,032 |
| 20.9 | Foot of shoals, surface of water | 1,031 |
| 21.3 | Head of shoals, surface of water | 1,031 |
| 21.3 | Foot of shoals, surface of water | 1,030 |
| 21.5 | Head of shoals, surface of water | 1,030 |
| 21.7 | Head of large island, head of shoals, surface of water | 1,030 |
| 22 | 250 feet below foot of large island, foot of shoals, surface of water | 1,026 |
| 22.4 | Ford, head of shoals, surface of water | 1,026 |
| 22.5 | Foot of shoals, surface of water | 1,025 |
| 23.4 | Head of shoals, surface of water | 1,024 |
| 23.7 | Head of shoals, surface of water | 1,023 |
| 23.7 | Foot of shoals, surface of water | 1,022 |
| 24 | Head of shoals, surface of water | 1,022 |
| 24.3 | Foot of shoals, surface of water | 1,016 |
| 25 | Avery Ford, 50 feet above, head of shoals, surface of water | *1,015 |
| 25 | Foot of shoals, surface of water | 1,013 |
| 25.4 | Head of shoals, surface of water | 1,013 |
| 25.4 | Foot of shoals, surface of water | 1,012 |
| 26.6 | Between long island and north bank of river, head of shoals, surface of water | 1,009 |
| 26.6 | Foot of shoals, surface of water | 1,007 |
| 27.2 | Surface of water | 1,006 |
| 28.1 | Head of shoals, surface of water | 1,004 |
| 28.2 | Head of long, narrow island, foot of shoals, surface of water | 1,003 |
| 29 | Greenlea Ford, head of shoals, surface of water | 1,001 |
| 29.1 | Foot of shoals, surface of water | 1,001 |
| 29.4 | Between island and mouth, head of shoals, surface of water | 1,000 |
| 29.6 | Foot of island, foot of shoals | 998 |
| 29.9 | Head of shoals, surface of water | 998 |
| 29.9 | Foot of shoals, surface of water | 997 |
| 30.2 | Upper Morganton Bridge, head of shoals under, surface of water | †996 |
| 31.7 | Fleming Ford, head of islands, head of shoals, surface of water | 992 |
| 32 | Foot of shoals, surface of water | 988 |
| 33 | Lower Morganton Bridge, under, surface of water | 986 |
| 33.5 | Head of shoals, surface of water | 986 |
| 34.2 | Foot of shoals, surface of water | 977 |
| 34.4 | Head of shoals, surface of water | 976 |
| 34.8 | Below island at mouth of creek on south bank, foot of shoals, surface of water | 974 |
| 35.5 | Mouth of John River, surface of water | 972 |
| 37.1 | Head of shoals, surface of water | 969 |
| 37.9 | Foot of shoals, surface of water | 963 |
| 38.5 | Huffman Ferry, north bank, west side of road, nail in post | 974.2 |
| | Huffman Ferry, at east corner of Huffman's house, nail in root of tree | 1,011.75 |
| 38.5 | Surface of water | 961 |
| 38.7 | Head of shoals, surface of water | 959 |
| 40.7 | At mouth of creek on south, head of shoals, surface of water | 957 |
| 40.7 | Foot of shoals, surface of water | 956 |
| 41.2 | Head of large island, head of shoals, surface of water | 955 |
| 41.2 | Between island and north bank of river, foot of shoals, surface of water | 955 |
| 41.4 | Foot of island, head of shoals, surface of water | 955 |
| 41.4 | Foot of shoals, surface of water | 955 |

*Circuit from White Ford to Avery Ford is adjusted to Glen Alpine, 73.2 feet north of north rail of main track, southeast corner of brick basement of Hennessee & Co.'s store, bronze tablet marked "1215"; elevation, 1,213.944 feet.

†Upper Morganton Bridge line adjusted to Morganton (Burke County) courthouse, extreme northwest corner of north portico, bronze tablet marked "1182"; elevation, 1,180.774 feet.

ELEVATIONS ON CATAWBA RIVER BETWEEN HALLTOWN ROAD AND CONNELLY SPRINGS, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 41.6 | Lovelady Ford, at head of small island between large island and south bank, head of shoals, surface of water | 954 |
| 41.8 | Lovelady Ford, north bank of river, surface of water | 953 |
| 41.9 | Foot of large island at foot of shoals, surface of water | 951 |
| 43.6 | County Ferry, 200 feet south of; west side of road, nail in box alder | 968.8 |
| 43.6 | Surface of water | 948 |
| 43.8 | Head of shoals, surface of water | 947 |
| 43.8 | Foot of shoals, surface of water | 947 |
| 44.5 | Head of shoals, surface of water | 947 |
| 44.5 | Foot of shoals, surface of water | *946 |

*Connelly Springs, 142.4 feet north of north rail of main track, James Hudson's brick store, south front, near east corner, bronze tablet marked "1193"; elevation, 1,191.762 feet.

Johnsons Mill Creek flows into Catawba 1.6 miles below County Ferry, south side of river.

NOTE.—Water-surface elevations adjusted to mean gage reading 1.8 feet at Upper Morganton Bridge; elevation of 1.8-foot mark, 996.3 feet.

## KANAWHA RIVER DRAINAGE BASIN.

### DESCRIPTION OF BASIN.

Kanawha River, which rises in Watauga, Ashe, and Alleghany counties, N. C., flows northwestward through Virginia and West Virginia and joins Ohio River at Point Pleasant, W. Va. In its upper course it is known as New River. The headwaters lie in the Appalachian Mountains, among the high ridges which form the divides between the drainage basin of this river and Yadkin River on the east and Holston River on the west. The upper tributaries drain narrow valleys of the mountainous region of North Carolina, and their slopes are generally steep and their beds rough. The main river cuts the Alleghany Front just below Pearisburg, Va.; thence the river's course is through a narrow valley of West Virginia over a rough bed with many falls and rapids. The basin is as beautiful and picturesque as any in the eastern part of the United States. The country on its lower courses, through which the Chesapeake and Ohio Railway passes, is noted for its scenic beauty. Below the junction with the Gauley the river is known as the Kanawha.

The principal tributaries of New River are Little River, which empties near Radford, Va., and the Greenbriar, which rises in the eastern part of West Virginia and joins the New at Hinton, W. Va.

### MEASUREMENTS OF STREAM FLOW.

#### NEW RIVER NEAR OLDTOWN, VA.

This station, like those on the North and South forks of New River, was established to aid in the hydrographic investigations undertaken by the United States Geological Survey in the southern Appalachian area. It was established July 31, 1900, and is located about 2 miles west of Oldtown, at Austin's Ferry. The wire gage was fixed in an overhanging tree on the left bank, about 50 yards upstream from the ferry. The channel above and below the station is straight and the current swift. The right bank is high and rocky and is never submerged, but the left bank is lower, and at times floods cover it for a considerable distance.

The station was discontinued March 31, 1903.

List of Discharge Measurements of New River near Oldtown, Va.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1900. | | | |
| July 31 | N. C. Curtis | 0.70 | 1,541 |
| Oct. 29 | ....do | 1.00 | 2,293 |
| 1901. | | | |
| June 29 | N. C. Curtis | 4.45 | 6,916 |
| 1903. | | | |
| Feb. 6 | E. W. Myers | 1.70 | 3,533 |

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER NEAR OLDTOWN, VA., FOR 1900.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.60 | 0.50 | 0.40 | 0.70 | 1.00 | 17 | 0.30 | 1.50 | 0.40 | 0.50 | 0.80 |
| 2 | .60 | .40 | .50 | .70 | .90 | 18 | .30 | .80 | .30 | .50 | .70 |
| 3 | .50 | .30 | .60 | 1.90 | .80 | 19 | .20 | .50 | .30 | .50 | .70 |
| 4 | .50 | .20 | .70 | 2.20 | 1.50 | 20 | .40 | .40 | .30 | .50 | .60 |
| 5 | .40 | .20 | .90 | 1.70 | 2.70 | 21 | .40 | .50 | .30 | .50 | .60 |
| 6 | .40 | .20 | .90 | 1.30 | 1.80 | 22 | .80 | .50 | .30 | .60 | .80 |
| 7 | .40 | .20 | .80 | 1.00 | 1.50 | 23 | .70 | .50 | .30 | .60 | .80 |
| 8 | .30 | .20 | .70 | .90 | 1.40 | 24 | .60 | .60 | *8.20 | .70 | .80 |
| 9 | .30 | .10 | .60 | .80 | 1.40 | 25 | .60 | .50 | 3.00 | .70 | .50 |
| 10 | .20 | .10 | .60 | .80 | 1.20 | 26 | .40 | .80 | 1.90 | 4.90 | .60 |
| 11 | .20 | .10 | .50 | .80 | 1.20 | 27 | .30 | .50 | 1.40 | 2.70 | .60 |
| 12 | .10 | .10 | .40 | .70 | 1.10 | 28 | .30 | .40 | 1.20 | 1.50 | .60 |
| 13 | .00 | .10 | .40 | .60 | 1.00 | 29 | .30 | .40 | 1.00 | 1.30 | .60 |
| 14 | .10 | .50 | .50 | .70 | 1.00 | 30 | 1.00 | .50 | 1.00 | 1.10 | 1.00 |
| 15 | .60 | 1.60 | .40 | .70 | .80 | 31 | .70 | ------- | .80 | ------- | .90 |
| 16 | .50 | 3.40 | .40 | .60 | .80 | | | | | | |

*Estimated.

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER NEAR OLDTOWN, VA., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.90 | 0.80 | 0.90 | 1.60 | 1.60 | 2.20 | 3.20 | 1.20 | 4.10 | 2.10 | 0.80 | 0.80 |
| 2 | .80 | .70 | .80 | 2.50 | 1.40 | 2.00 | 2.20 | 1.10 | 3.10 | 3.10 | .80 | .80 |
| 3 | .70 | .60 | .70 | 6.10 | 1.40 | 1.90 | 1.90 | .90 | 2.60 | 2.30 | .80 | 1.10 |
| 4 | .70 | 1.00 | .80 | 3.80 | 1.30 | 1.80 | 1.90 | .90 | 2.40 | 1.90 | .90 | 1.50 |
| 5 | .60 | .80 | .70 | 2.60 | 1.20 | 1.70 | 1.90 | .90 | 2.20 | 1.70 | .90 | 1.50 |
| 6 | .60 | .80 | .70 | 2.10 | 1.20 | 1.60 | 1.80 | †13.00 | 2.10 | 1.50 | .90 | 1.00 |
| 7 | .70 | .80 | .60 | 2.00 | 1.30 | 2.50 | 2.00 | 4.90 | 2.00 | 1.50 | .80 | .90 |
| 8 | .70 | .90 | .60 | 1.70 | 1.40 | 2.20 | 1.90 | 2.90 | 1.90 | 1.50 | .80 | .80 |
| 9 | .80 | 1.00 | .50 | 1.60 | 1.50 | 1.70 | 1.60 | 2.00 | 1.90 | 1.40 | .80 | .80 |
| 10 | .80 | 1.00 | .90 | 1.40 | 1.60 | 1.60 | 1.50 | 1.70 | 1.70 | 1.30 | .70 | 1.50 |
| 11 | 1.00 | .90 | 1.40 | 1.30 | 1.60 | 1.60 | 1.50 | 1.80 | 1.70 | 1.30 | .70 | 1.30 |
| 12 | 3.00 | 1.00 | 1.30 | 1.20 | 1.50 | 1.50 | 1.40 | 1.90 | 1.60 | 1.20 | .70 | 1.10 |
| 13 | 2.40 | .90 | 1.00 | 1.10 | 1.20 | 1.40 | 1.30 | 4.30 | 1.60 | 2.40 | .70 | 1.00 |
| 14 | 1.80 | .70 | .90 | 1.90 | 1.10 | 2.40 | 2.60 | 6.10 | 1.50 | 3.30 | .60 | 2.00 |
| 15 | 1.40 | .80 | .80 | 1.80 | 1.10 | 4.60 | 1.40 | 4.20 | 1.50 | 1.90 | .60 | †10.00 |
| 16 | 1.10 | .80 | .80 | 1.50 | 1.00 | 3.80 | 1.60 | 5.20 | 1.60 | 1.60 | .60 | 4.10 |
| 17 | 1.10 | .80 | .70 | 1.40 | 1.50 | 4.60 | 1.60 | 6.20 | 1.90 | 1.40 | .60 | 3.00 |
| 18 | .90 | .80 | .70 | 1.20 | 1.30 | 3.50 | 2.40 | 5.20 | 2.00 | 1.20 | .50 | 1.90 |
| 19 | .80 | .70 | .60 | 1.20 | 1.60 | 2.90 | 2.30 | 4.10 | 1.90 | 1.10 | .50 | 1.70 |
| 20 | .70 | .70 | .70 | ------- | 1.40 | 2.40 | 2.40 | 3.60 | 1.70 | 1.20 | .50 | 1.50 |
| 21 | 1.00 | .60 | 1.10 | 6.10 | 1.30 | 3.00 | 1.40 | 3.90 | 1.50 | 1.10 | .40 | 1.60 |
| 22 | 1.00 | .60 | 1.00 | 3.70 | 16.70 | 3.80 | 1.30 | 3.10 | 1.40 | 1.00 | .40 | 1.50 |
| 23 | .90 | *.70 | .80 | 2.80 | 6.10 | 6.10 | 1.20 | 6.10 | 1.40 | 1.00 | 1.40 | 1.40 |
| 24 | .90 | ------- | .70 | 2.60 | 3.90 | 4.60 | 1.10 | 3.80 | 1.20 | 1.00 | 1.40 | 2.50 |
| 25 | .80 | ------- | 1.00 | 2.40 | 3.10 | 3.00 | 1.00 | 3.00 | 1.10 | 1.00 | 1.20 | 2.30 |
| 26 | .80 | ------- | 4.00 | 2.30 | 2.70 | 2.80 | 1.00 | 2.80 | 1.10 | .90 | 1.10 | 2.00 |
| 27 | .70 | ------- | 3.00 | 2.20 | 4.40 | 2.60 | 1.10 | 3.10 | 2.20 | .90 | 1.00 | 1.70 |
| 28 | .70 | 1.10 | 1.90 | 2.10 | 3.60 | 2.30 | 1.20 | 5.90 | 2.00 | .90 | 1.00 | 1.90 |
| 29 | .60 | ------- | 1.50 | 2.00 | 3.30 | 2.50 | 1.00 | 3.70 | 5.10 | .90 | .90 | †10.00 |
| 30 | .70 | ------- | 2.00 | 1.80 | 2.70 | 2.10 | 1.00 | 3.00 | 2.80 | .80 | .70 | 6.00 |
| 31 | .80 | ------- | 2.00 | ------- | 2.40 | ------- | .90 | 3.10 | ------- | .80 | ------ | 3.80 |

*Frozen February 24 to 27. †Estimated.

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER NEAR OLDTOWN, VA., FOR 1902.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 2.20 | 6.20 | 2.10 | 1.00 | 0.60 | 1.90 | 0.50 | 0.30 | 0.40 | 0.40 | 1.00 |
| 2 | 2.70 | 2.50 | 3.70 | 1.80 | 1.00 | .70 | 1.60 | .70 | .30 | .40 | .40 | 1.10 |
| 3 | 2.00 | 2.30 | 2.80 | 1.70 | 1.00 | .70 | 1.40 | .70 | .50 | .60 | .40 | 1.40 |
| 4 | 2.00 | 1.90 | 2.40 | 1.60 | .90 | .70 | 1.10 | .70 | 1.00 | .50 | .40 | 1.50 |
| 5 | 1.70 | 1.90 | 2.00 | 1.90 | .90 | .60 | 1.00 | .60 | .80 | .80 | .40 | 1.50 |
| 6 | 1.90 | 1.70 | 1.90 | 1.70 | 1.00 | .60 | .80 | .60 | .80 | 1.00 | .50 | 1.40 |
| 7 | 1.80 | 1.50 | 1.90 | 1.60 | 1.00 | .60 | .90 | 1.40 | .40 | .70 | .60 | 1.20 |
| 8 | 1.70 | 1.40 | 1.80 | 1.90 | 1.10 | .90 | 1.10 | .80 | .40 | .60 | .70 | 1.10 |
| 9 | 1.50 | 1.10 | 1.80 | 1.70 | 1.00 | 1.00 | 1.20 | .70 | 1.00 | .40 | .60 | .90 |
| 10 | 1.50 | .90 | 2.00 | 1.60 | .90 | 1.00 | .80 | .50 | 2.00 | .40 | .50 | .90 |
| 11 | 1.40 | 1.00 | 1.90 | 1.50 | .80 | .90 | .80 | .50 | .90 | .60 | .50 | .90 |
| 12 | 1.30 | 1.20 | 1.70 | 1.50 | .90 | .90 | .70 | .40 | .60 | .90 | .40 | .80 |
| 13 | 1.10 | 1.20 | 1.90 | 1.40 | .80 | .60 | .70 | 2.00 | .50 | 1.00 | .40 | .80 |
| 14 | 1.10 | 1.10 | 1.60 | 1.40 | .80 | 2.10 | .80 | 1.10 | .40 | .90 | .30 | .90 |
| 15 | 1.00 | 1.00 | 1.50 | 1.50 | 1.00 | 1.90 | 1.00 | .50 | .40 | .70 | .30 | .80 |
| 16 | .40 | 1.10 | 1.90 | 1.50 | 1.10 | 3.10 | .80 | .70 | .40 | .50 | .30 | 1.00 |
| 17 | 1.30 | 1.10 | 2.40 | 1.40 | 1.00 | 2.80 | .80 | .90 | .40 | .50 | .30 | 1.60 |
| 18 | 1.20 | 1.20 | 2.10 | 1.30 | 1.00 | 1.70 | .60 | .80 | .40 | .40 | .80 | 1.30 |
| 19 | 1.20 | 2.00 | 1.90 | 1.20 | 1.50 | 1.40 | .60 | .60 | .40 | .40 | 1.10 | 1.20 |
| 20 | 1.10 | 1.90 | 1.70 | 1.50 | 1.00 | 1.20 | .60 | .50 | .40 | .40 | .70 | 1.00 |
| 21 | 1.00 | 2.20 | 1.60 | 1.50 | 1.10 | 1.10 | .50 | .50 | .50 | .40 | .60 | 1.00 |
| 22 | 1.20 | 1.90 | 1.50 | 1.40 | .90 | 1.00 | .50 | .60 | .50 | .20 | .50 | 1.20 |
| 23 | 1.10 | 1.50 | 1.40 | 1.30 | .90 | .90 | .60 | .60 | .40 | .20 | .50 | 1.10 |
| 24 | 1.10 | 1.40 | 1.40 | 1.20 | 1.00 | .80 | .50 | .40 | .40 | .20 | .50 | 1.00 |
| 25 | 1.20 | 3.60 | 1.30 | 1.20 | 1.00 | .80 | .50 | .40 | .50 | .20 | .60 | .80 |
| 26 | 1.20 | 3.90 | 1.20 | 1.10 | 1.20 | .90 | .40 | .40 | .80 | .20 | 1.00 | .60 |
| 27 | 1.00 | 2.60 | 1.20 | 1.00 | 1.00 | 2.60 | .40 | .40 | .60 | .40 | 1.20 | †1.00 |
| 28 | 2.00 | *11.00 | 1.40 | 1.00 | .90 | 3.90 | .40 | .40 | .50 | .90 | 1.00 | ------ |
| 29 | 1.70 | -------- | 1.90 | 1.00 | .90 | 4.10 | .50 | .40 | .50 | 1.10 | .80 | ------ |
| 30 | 1.90 | -------- | 3.90 | 1.00 | .70 | 2.20 | .70 | .30 | .40 | .70 | .70 | ------ |
| 31 | 3.00 | -------- | 2.50 | -------- | .70 | -------- | .60 | .30 | -------- | .50 | ------ | ------ |

*Estimated. †Frozen December 28 to 31.

MEAN DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER NEAR OLDTOWN, VA., FOR 1903.

| Day. | Jan. | Feb. | Mar. | Day. | Jan. | Feb. | Mar. | Day. | Jan. | Feb. | Mar. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.60 | 1.20 | 4.10 | 12 | 0.90 | 2.80 | 2.10 | 23 | 0.90 | 1.40 | 4.70 |
| 2 | 2.90 | 1.10 | 2.60 | 13 | .90 | 2.40 | 2.00 | 24 | .90 | 1.20 | 4.80 |
| 3 | 3.90 | 1.20 | 2.10 | 14 | .90 | 1.90 | 1.80 | 25 | .90 | 1.10 | 3.00 |
| 4 | 2.40 | 1.40 | 1.80 | 15 | .90 | 1.60 | 1.60 | 26 | 1.00 | 1.10 | 2.40 |
| 5 | 1.90 | 3.00 | 1.60 | 16 | .90 | 1.50 | 1.50 | 27 | 1.10 | 1.20 | 2.00 |
| 6 | 1.50 | 1.80 | 1.50 | 17 | .90 | 5.40 | 1.50 | 28 | 1.30 | 2.90 | 1.60 |
| 7 | 1.30 | 1.50 | 1.50 | 18 | .90 | 3.20 | 1.40 | 29 | 1.40 | -------- | 5.60 |
| 8 | 1.10 | 1.90 | 1.60 | 19 | .90 | 2.20 | 1.20 | 30 | 1.50 | -------- | 3.10 |
| 9 | .90 | 1.90 | 1.70 | 20 | .90 | 2.10 | 1.20 | 31 | 1.30 | -------- | 2.20 |
| 10 | .90 | 1.80 | 1.80 | 21 | .90 | 1.80 | 1.40 | | | | |
| 11 | .90 | 1.70 | 2.40 | 22 | .90 | 1.50 | 1.70 | | | | |

### NEW RIVER (NORTH FORK) AT WEAVERSFORD, N. C.

During the summer and autumn of 1900, and during a part of the same period in 1901, a special investigation of the hydrographic conditions of the Southern Appalachian region was made by the United States Geological Survey, and temporary stations were established on a number of the larger streams.

The station at Weaversford was established July 27, 1900, and was located about one-fourth of a mile distant from Weaversford post-office and near Dixon's Mill. The gage rod is 12.6 feet long and is nailed to the downstream vertical timber of the forebay of Dixon's Mill. The discharge measurements are made by wading at a comparatively shallow ford not on a public road, about 400 yards below the house of Mr. Dixon. The bed of the stream is rocky and gravelly and constant in form. The banks of the river are high, and are seldom overflowed.

The station was abandoned December 31, 1901.

List of Discharge Measurements of New River (North Fork) at Weaversford, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1900. | | | |
| July 28 | N. C. Curtis | 0.60 | 536 |
| Oct. 27 | do | .90 | 708 |
| 1901. | | | |
| June 27 | N. C. Curtis | 1.40 | 1,377 |

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER (NORTH FORK) AT WEAVERSFORD, N. C., FOR 1900 AND 1901.

| 1900. (Day) | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | | | 0.10 | 0.10 | 0.70 | 0.70 | 0.80 |
| 2 | | | .10 | .90 | .80 | .60 | .90 |
| 3 | | | .10 | .90 | .75 | 2.10 | .90 |
| 4 | | | .10 | .90 | .45 | 1.00 | 1.80 |
| 5 | | | | .90 | .30 | .85 | 1.20 |
| 6 | | | | .90 | .70 | .80 | .50 |
| 7 | | | | .90 | | .70 | .50 |
| 8 | | | | .90 | | .70 | .70 |
| 9 | | | | 1.00 | | .60 | .70 |
| 10 | | | | 1.00 | | .60 | .70 |
| 11 | | | | 1.00 | | .60 | .70 |
| 12 | | | .10 | 1.00 | | .60 | .80 |
| 13 | | | .10 | .65 | | .70 | .80 |
| 14 | | | .30 | .90 | .90 | .70 | .90 |
| 15 | | | .20 | .75 | .90 | .80 | .90 |
| 16 | | | .20 | .65 | .90 | .80 | .70 |
| 17 | | | .10 | .55 | .90 | .90 | .70 |
| 18 | | | .10 | .65 | .90 | .90 | .70 |
| 19 | | | .10 | .75 | 1.00 | .90 | .70 |
| 20 | | | .10 | .80 | 1.00 | .90 | .80 |
| 21 | | | .20 | .80 | 1.00 | .90 | .80 |
| 22 | | | .40 | .90 | 1.10 | 1.00 | .80 |
| 23 | | | .60 | 1.00 | 7.30 | 1.00 | .90 |
| 24 | | | .40 | .10 | 5.50 | 1.00 | .90 |
| 25 | | | .10 | .30 | 1.70 | 1.00 | .90 |
| 26 | | | .10 | .40 | 1.00 | 3.00 | .90 |
| 27 | | 1.00 | .10 | .60 | .90 | 1.00 | 1.00 |
| 28 | | .50 | .10 | .80 | 1.00 | 2.00 | 1.00 |
| 29 | | .30 | 4.10 | .90 | .90 | .50 | 1.00 |
| 30 | | .20 | .10 | .65 | .90 | .60 | |
| 31 | | .20 | .10 | | .80 | | |
| **1901.** | | | | | | | |
| 1 | | 1.70 | .40 | 1.80 | .60 | .20 | .20 |
| 2 | | .90 | .20 | 1.70 | .50 | .20 | .20 |
| 3 | | .60 | .10 | 1.30 | .40 | .20 | .60 |
| 4 | | .80 | .10 | 1.00 | .40 | .20 | .40 |
| 5 | | .70 | 2.35 | .80 | .60 | .20 | .30 |
| 6 | | .60 | 5.75 | .70 | 2.30 | .20 | .30 |
| 7 | | 2.00 | 2.15 | .60 | 1.00 | .20 | .30 |
| 8 | | .70 | 9.00 | .50 | .80 | .20 | .20 |
| 9 | | .50 | 7.00 | .50 | .60 | .20 | .30 |
| 10 | | .40 | 7.50 | .70 | .40 | .20 | .70 |
| 11 | | .40 | 5.90 | .70 | .40 | .20 | .40 |
| 12 | | .30 | 3.75 | .60 | .40 | .20 | .30 |
| 13 | | .40 | 3.00 | .60 | .50 | .30 | .30 |
| 14 | | .30 | 3.70 | .60 | .40 | .30 | 2.00 |
| 15 | | .30 | 3.00 | .60 | .40 | .20 | 7.60 |
| 16 | | .40 | 3.15 | .50 | .60 | .20 | 1.50 |
| 17 | | 1.20 | 3.40 | .50 | 1.00 | .20 | 1.00 |
| 18 | | 1.50 | 3.60 | .80 | .70 | .30 | .80 |
| 19 | | .70 | 2.00 | .50 | .60 | .30 | .60 |
| 20 | | .60 | 2.60 | .40 | .30 | .30 | .60 |
| 21 | | .30 | 3.00 | .60 | .20 | .30 | .40 |
| 22 | | .20 | 2.60 | .40 | .20 | .20 | .40 |
| 23 | | .20 | 1.25 | .60 | .20 | .20 | .40 |
| 24 | | .20 | 3.00 | .40 | .20 | .40 | .30 |
| 25 | | .20 | 1.00 | .40 | .20 | .40 | .30 |
| 26 | | .70 | 1.50 | .30 | .20 | .30 | .60 |
| 27 | 1.00 | .70 | 1.60 | .30 | .20 | .30 | 1.50 |
| 28 | 1.00 | .10 | 1.80 | .70 | .20 | .30 | 1.60 |
| 29 | .90 | .10 | 1.80 | .40 | .20 | .30 | 10.50 |
| 30 | 1 00 | .10 | 1.20 | 1.20 | .20 | .30 | 4.40 |
| 31 | | .20 | 1.90 | | .20 | | 3.40 |

RATING TABLE FOR NEW RIVER (NORTH FORK) AT WEAVERSFORD, N. C., FOR 1900 AND 1901.

| Gage Height Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.0 | ----- | 1.6 | 1,745 | 3.2 | 4,705 | 4.8 | 7,665 |
| .1 | 260 | 1.7 | 1,930 | 3.3 | 4,890 | 4.9 | 7,850 |
| .2 | 300 | 1.8 | 2,115 | 3.4 | 5,075 | 5.0 | 8,035 |
| .3 | 350 | 1.9 | 2,300 | 3.5 | 5,260 | 5.1 | 8,220 |
| .4 | 400 | 2.0 | 2,485 | 3.6 | 5,445 | 5.2 | 8,405 |
| .5 | 455 | 2.1 | 2,670 | 3.7 | 5,630 | 5.3 | 8,590 |
| .6 | 515 | 2.2 | 2,855 | 3.8 | 5,815 | 5.4 | 8,775 |
| .7 | 580 | 2.3 | 3,040 | 3.9 | 6,000 | 5.5 | 8,960 |
| .8 | 650 | 2.4 | 3,225 | 4.0 | 6,185 | 5.6 | 9,145 |
| .9 | 720 | 2.5 | 3,410 | 4.1 | 6,370 | 5.7 | 9,330 |
| 1.0 | 810 | 2.6 | 3,595 | 4.2 | 6,555 | 5.8 | 9,515 |
| 1.1 | 920 | 2.7 | 3,780 | 4.3 | 6,740 | 5.9 | 9,700 |
| 1.2 | 1,040 | 2.8 | 3,965 | 4.4 | 6,925 | 6.0 | 9,885 |
| 1.3 | 1,200 | 2.9 | 4,150 | 4.5 | 7,110 | | |
| 1.4 | 1,375 | 3.0 | 4,335 | 4.6 | 7,295 | | |
| 1.5 | 1,560 | 3.1 | 4,520 | 4.7 | 7,480 | | |

ESTIMATED MONTHLY DISCHARGE OF NEW RIVER (NORTH FORK) AT WEAVERSFORD, N. C.

[Drainage area, 278 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | |
| July* | ------ | --- | 443 | 1.59 | 0.28 |
| August† | ------ | --- | 541 | 1.95 | 1.74 |
| September | 810 | 260 | 626 | 2.25 | 2.51 |
| October† | ------ | --- | 1,571 | 5.65 | 5.05 |
| November | 4,335 | 455 | 901 | 3.24 | 3.61 |
| December‡ | ------ | --- | 717 | 2.58 | 2.97 |
| 1901. | | | | | |
| June§ | ------ | --- | 788 | 2.83 | .42 |
| July | 2,485 | 260 | 596 | 2.14 | 2.47 |
| August | 15,435 | 260 | 4,211 | 15.15 | 17.46 |
| September | 2,115 | 350 | 643 | 2.31 | 2.58 |
| October | 3,040 | 300 | 511 | 1.84 | 2.12 |
| November | 400 | 300 | 325 | 1.17 | 1.31 |
| December | 18,210 | 300 | 1,942 | 6.98 | 8.06 |

*5 days. †24 days. ‡29 days. §June 27–30.

### NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C.

This station was established July 28, 1900, and was located near New River Post-office and about 75 yards upstream from Warden's Store.

The gage was a wire cord running over a bolt driven into a locust tree and the stage of the water surface was read on a horizontal scale, divided into feet and tenths, by means of a pointer fastened to the wire.

The point of gaging was at a ford about 1 mile downstream from the gage. The measurements of discharge are made by wading.

The channel is straight, the banks seldom overflow, and the bed of the stream rocky and covered with cobbles and bowlders. This station was abandoned December 31, 1901.

LIST OF DISCHARGE MEASUREMENTS OF NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1900. | | | |
| July 28 | N. C. Curtis | 2.70 | 751 |
| Oct. 28 | do | 2.60 | 1,035 |
| 1901. | | | |
| June 27 | N. C. Curtis | 3.90 | 1,976 |

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900. | | | | | | | 1900. | | | | | | |
| 1 | | 2.45 | 2.30 | 2.30 | 2.60 | 2.70 | 17 | | 2.20 | 2.80 | 2.25 | 2.40 | 2.60 |
| 2 | | 2.35 | 2.25 | 2.30 | 2.60 | 2.70 | 18 | | 2.20 | 2.40 | 2.20 | 2.40 | 2.60 |
| 3 | | 2.30 | 2.20 | 2.45 | 3.50 | 2.70 | 19 | | 2.20 | 2.40 | 2.20 | 2.40 | 2.60 |
| 4 | | 2.30 | 2.20 | 2.80 | 3.80 | 3.95 | 20 | | 2.20 | 2.30 | 2.20 | 2.40 | 2.60 |
| 5 | | 2.30 | 2.20 | 2.75 | 3.30 | 3.70 | 21 | | 2.20 | 2.30 | 2.20 | 2.35 | 2.60 |
| 6 | | 2.30 | 2.20 | 2.70 | 2.80 | 3.20 | 22 | | 2.30 | 2.30 | 2.20 | 2.30 | 2.60 |
| 7 | | 2.30 | 2.20 | 2.55 | 2.65 | 2.85 | 23 | | 2.30 | 2.30 | 7.90 | 2.30 | 2.70 |
| 8 | | 2.30 | 2.20 | 2.50 | 2.60 | 2.80 | 24 | | 2.30 | 2.30 | 6.70 | 2.30 | 2.60 |
| 9 | | 2.30 | 2.20 | 2.45 | 2.60 | 2.80 | 25 | | 2.30 | 2.30 | 3.75 | 2.70 | 2.60 |
| 10 | | 2.30 | 2.20 | 2.40 | 2.60 | 2.75 | 26 | | 2.25 | 2.30 | 3.05 | 5.20 | 2.60 |
| 11 | | 2.30 | 2.20 | 2.40 | 2.60 | 2.70 | 27 | | 2.20 | 2.30 | 2.90 | 3.60 | 2.60 |
| 12 | | 2.30 | 2.15 | 2.35 | 2.55 | 2.70 | 28 | | 2.20 | 2.30 | 2.70 | 3.05 | 2.60 |
| 13 | | 2.35 | 2.10 | 2.30 | 2.50 | 2.60 | 29 | 2.65 | 2.50 | 2.30 | 2.60 | 2.95 | 2.60 |
| 14 | | 2.40 | 2.55 | 2.30 | 2.50 | 2.60 | 30 | 2.50 | 2.45 | 2.30 | 2.60 | 2.80 | 2.60 |
| 15 | | 2.35 | 2.60 | 2.30 | 2.45 | 2.60 | 31 | 2.50 | 2.35 | | 2.60 | | 2.80 |
| 16 | | 2.30 | 3.70 | 2.30 | 2.40 | 2.60 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.75 | 2.55 | 2.60 | 3.05 | 3.40 | ------- | 3.95 | 2.85 | 4.80 | 3.80 | 2.95 | 2.70 |
| 2 | 2.70 | 2.50 | 2.60 | 4.45 | 3.30 | ------- | 3.70 | 2.80 | 4.30 | 3.70 | 2.90 | 2.70 |
| 3 | 2.70 | 2.55 | 2.55 | 5.65 | 3.30 | ------- | 3.60 | 2.75 | 4.10 | 3.70 | 2.90 | 3.15 |
| 4 | 2.65 | 2.80 | 2.50 | 4.25 | 3.25 | ------- | 3.70 | 2.70 | 4.05 | 3.50 | 2.90 | 3.15 |
| 5 | 2.60 | 2.70 | 2.50 | 3.70 | 3.30 | ------- | 3.65 | 3.95 | 3.85 | 3.40 | 3.00 | 2.95 |
| 6 | 2.55 | 2.50 | 2.50 | 3.60 | 3.30 | ------- | 4.05 | 9.47 | 3.70 | 3.30 | 2.95 | 2.85 |
| 7 | 2.50 | 2.55 | 2.50 | 3.55 | 3.20 | ------- | 3.65 | 5.30 | 3.65 | 3.25 | 2.90 | 2.75 |
| 8 | 2.50 | 2.70 | 2.50 | 3.40 | 3.20 | ------- | 3.55 | 4.00 | 3.60 | 3.20 | 2.90 | 2.70 |
| 9 | 2.50 | 3.05 | 2.50 | 3.10 | 3.55 | ------- | 3.45 | 3.55 | 3.60 | 43.15 | 2.90 | 2.80 |
| 10 | 2.55 | 2.95 | 2.60 | 3.05 | 3.45 | ------- | 3.30 | 3.35 | 3.60 | 1.10 | 2.90 | 3.80 |
| 11 | 3.20 | 2.80 | 3.15 | 3.00 | 3.65 | ------- | 3.20 | 3.35 | 3.55 | 3.10 | 2.90 | 3.40 |
| 12 | 3.55 | 2.65 | 2.95 | 2.95 | 3.45 | ------- | 3.20 | 4.65 | 3.55 | 3.10 | 2.90 | 3.00 |
| 13 | 3.50 | 2.60 | 2.70 | 3.05 | 3.20 | ------- | 3.15 | 6.25 | 3.60 | 4.90 | 2.90 | 2.90 |
| 14 | 2.95 | 2.60 | 2.65 | 3.80 | 3.00 | ------- | 3.20 | 5.60 | 3.60 | 4.20 | 2.85 | 5.90 |
| 15 | 2.90 | 2.60 | 2.60 | 3.40 | 3.00 | ------- | 3.25 | 5.60 | 3.60 | 3.25 | 2.80 | 13.00 |
| 16 | 2.80 | 2.60 | 2.60 | 3.10 | 3.00 | ------- | 3.40 | 5.35 | 3.60 | 3.10 | 2.80 | 5.40 |
| 17 | 2.80 | 2.60 | 2.60 | 3.05 | 3.00 | ------- | 3.50 | 7.20 | 3.60 | 3.10 | 2.80 | 4.30 |
| 18 | 2.70 | 2.60 | 2.50 | 3.00 | 3.10 | ------- | 3.50 | 6.15 | 3.75 | 3.10 | 2.80 | 3.95 |
| 19 | 2.70 | 2.60 | 2.50 | 4.70 | 3.25 | ------- | 3.45 | 5.75 | 3.60 | 3.00 | 2.80 | 3.85 |
| 20 | 2.70 | 2.60 | 2.55 | 13.30 | 3.30 | ------- | 2.95 | 4.70 | 3.55 | 3.00 | 2.80 | 3.55 |
| 21 | 2.70 | 2.55 | 3.00 | 6.65 | 8.00 | ------- | 3.00 | 5.05 | 3.45 | 3.00 | 2.80 | 3.45 |
| 22 | 2.70 | 2.55 | 2.90 | 4.95 | 15.00 | ------- | 2.90 | 4.85 | 3.40 | 3.00 | 2.80 | 3.35 |
| 23 | 2.70 | 2.50 | 2.65 | 4.55 | ------- | ------- | 2.90 | 5.00 | 3.40 | 3.00 | 3.50 | 3.25 |
| 24 | 2.70 | 2.55 | 2.60 | 4.45 | ------- | ------- | 2.85 | 5.25 | 3.30 | 3.00 | 3.20 | 3.25 |
| 25 | 2.65 | 2.75 | 2.85 | 4.25 | ------- | ------- | 2.80 | 4.45 | 3.30 | 3.00 | 2.95 | 3.45 |
| 26 | 2.55 | 2.70 | 5.20 | 4.05 | ------- | ------- | 2.80 | 5.05 | 3.25 | 3.00 | 2.80 | 3.55 |
| 27 | 2.65 | 2.60 | 5.00 | 3.75 | ------- | ------- | 2.80 | 4.60 | 3.15 | 3.00 | 2.80 | 3.60 |
| 28 | 2.60 | 2.55 | 3.70 | 3.70 | ------- | ------- | 2.80 | 5.00 | 3.40 | 3.00 | 2.80 | 3.70 |
| 29 | 2.65 | ------- | 3.20 | 3.60 | ------- | ------- | 2.90 | 4.80 | 5.50 | 3.00 | 2.80 | 8.70 |
| 30 | 2.60 | ------- | 3.40 | 3.55 | ------- | ------- | 2.90 | 4.55 | 4.20 | 3.00 | 2.75 | 6.20 |
| 31 | 2.60 | ------- | 3.45 | ------- | ------- | ------- | 2.90 | 5.00 | ------- | 3.00 | ------ | 4.80 |

RATING TABLE FOR NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C., FOR 1900 AND 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.2 | 240 | 4.0 | 2,090 | 5.8 | 4,070 | 10.0 | 8,690 |
| 2.4 | 440 | 4.2 | 2,310 | 6.0 | 4,290 | 11.0 | 9,790 |
| 2.6 | 640 | 4.4 | 2,530 | 6.2 | 4,510 | 12.0 | 10,890 |
| 2.8 | 840 | 4.6 | 2,750 | 6.4 | 4,730 | 13.0 | 11,990 |
| 3.0 | 1,040 | 4.8 | 2,970 | 6.6 | 4,950 | 14.0 | 13,090 |
| 3.2 | 1,240 | 5.0 | 3,190 | 6.8 | 5,170 | 15.0 | 14,190 |
| 3.4 | 1,440 | 5.2 | 3,410 | 7.0 | 5,390 | | |
| 3.6 | 1,650 | 5.4 | 3,630 | 8.0 | 6,490 | | |
| 3.8 | 1,870 | 5.6 | 3,850 | 9.0 | 7,590 | | |

ESTIMATED MONTHLY DISCHARGE OF NEW RIVER (SOUTH FORK) AT NEW RIVER, N. C.

[Drainage area, 327 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | |
| July* | ------ | ----- | 590 | 1.80 | 0.20 |
| August | 540 | 240 | 342 | 1.05 | 1.21 |
| September | 1,760 | 200 | 389 | 1.19 | 1.33 |
| October | 6,380 | 240 | 878 | 2.68 | 3.09 |
| November | 3,410 | 340 | 820 | 2.51 | 2.80 |
| December | 2,035 | 640 | 789 | 2.41 | 2.78 |
| 1901. | | | | | |
| January | 1,595 | 540 | 779 | 2.38 | 2.75 |
| February | 1,090 | 540 | 677 | 2.07 | 2.16 |
| March | 3,410 | 540 | 957 | 2.93 | 3.37 |
| April | 12,320 | 990 | 2,275 | 6.96 | 8.88 |
| May† | ------ | ----- | 2,123 | 6.49 | 5.31 |
| June | ------ | ----- | ----- | ---- | ---- |
| July | 2,145 | 840 | 1,302 | 3.99 | 5.75 |
| August | 8,000 | 740 | 2,659 | 8.13 | 9.37 |
| September | 3,740 | 1,190 | 1,489 | 4.55 | 5.07 |
| October | 3,080 | 1,040 | 1,305 | 3.99 | 4.60 |
| November | 1,540 | 790 | 932 | 2.85 | 3.17 |
| December | 11,990 | 740 | 2,187 | 6.69 | 7.71 |

*Three days. †May (1–22).

# TENNESSEE RIVER BASIN.

## DESCRIPTION OF BASIN.

Tennessee River is formed by the junction of the French Broad and the Holston, about 4 miles above Knoxville, Tenn. It flows southwestward, crossing into Alabama about 40 miles below Chattanooga, Tenn., and, after crossing the northern part of Alabama, again enters Tennessee in Harding County. It then flows northward, crossing Tennessee and Kentucky, and enters Ohio River at Paducah, about 40 miles above Cairo. Its principal tributary on the north is Clinch River, which enters it near Kingston, Roan County, Tenn. The principal tributaries on the south are Hiwassee and Little Tennessee rivers. The Hiwassee rises in the northern part of Georgia and flows across the western part of North Carolina into Tennessee, and thence to the Tennessee River, about 30 miles above Chattanooga. Its principal tributaries are the Ocoee and Nottely. Little Tennessee River rises in the northeast corner of Georgia, flows across the southwestern part of North Carolina, and enters the Tennessee near Loudon, Tenn. Its principal tributary is the Tuckasegee. French Broad River rises in the western part of North Carolina. Its principal tributaries are the Pigeon and the Nolichucky. Holston River rises in the western part of Virginia. Its principal tributary is Watauga River.

## MEASUREMENTS OF STREAM FLOW.

### HIWASSEE RIVER AT RELIANCE, TENN.

This station was established on August 17, 1900. It is located at the Atlanta, Knoxville and Northern Railroad bridge, near the ferry landing at Reliance, Tenn.

Above the station the channel makes a sharp bend to the east for a distance of 800 feet. Below the station the channel makes a sharp bend to the west for about 1,000 feet. At ordinary stages the river is about 350 feet wide at this point, and the section is a fairly good one. The water is held back by a ledge of rock below, and is rather sluggish at low stages. Both banks overflow, but all water passes beneath the bridge and its approaches.

Discharge measurements are made from the railroad bridge and from the wooden trestles on both banks. The railroad track is about 34 feet above low water. The initial point for soundings is the center of the bridge pin about 1 foot from the end of the bridge on the right bank, downstream side. Discharge measurements at low stages can be made at a ferry near Wetmore, 6 miles below.

The gage is a vertical rod 10 feet long, fastened to an oak tree on the right bank 150 feet above the railroad bridge and 40 feet below the ferry landing and a 5-foot section, reading from 10 to 15 feet, attached to a sycamore tree on the downstream side of the road leading to the ferry, about 400 feet from the river. The gage is read once each day by C. V. Higdon. Bench marks were established as follows: (1) A cut in a hickory tree on the right bank of the river about 75 feet upstream from the bridge; elevation, 5.82 feet. (2) The top of the downstream iron girder under the cross-ties at a point about 40 feet from the end of the bridge on the right bank; elevation, 23.90 feet. (3) The top of the cap-

stone of the right-bank pier on the upstream side of the bridge; elevation, 19.26 feet. (4) A copper plug set in a stone post flush with the surface of the ground at the south end of C. V. Higdon's house, under the south window. This house stands on the right bank, about 50 feet up from the foot of the hill, 600 feet north of the right-bank end of the bridge, and opposite a point on the river about 300 feet above the bridge; elevation of the bench mark, 27.16 feet. Elevations refer to the datum of the gage.

Discharge Measurements of Hiwassee River at Reliance, Tenn.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1900. | | | | | | |
| Aug. 17 | Olin P. Hall | ---- | 1,995 | .56 | 1.12 | 1,123 |
| Sept. 3 | ----do | ---- | 2,019 | .57 | 1.16 | 1,159 |
| Nov. 30 | ----do | ---- | 2,209 | .90 | 1.72 | 1,985 |
| Dec. 19 | ----do | ---- | 2,102 | .69 | 1.42 | 1,442 |
| 1901. | | | | | | |
| Feb. 18 | Olin P. Hall | ---- | ----- | ---- | 2.01 | 2,698 |
| Feb. 27 | M. R. Hall | ---- | 2,182 | .96 | 1.77 | 2,104 |
| Apr. 2 | Olin P. Hall | ---- | 3,211 | 3.75 | 4.55 | 12,025 |
| June 24 | ----do | ---- | 2,329 | 1.13 | 1.98 | 2,620 |
| Aug. 21 | ----do | ---- | 2,693 | 3.06 | 3.74 | 8,229 |
| Oct. 30 | ----do | ---- | 2,126 | .72 | 1.43 | 1,522 |
| 1902. | | | | | | |
| Apr. 23 | Olin P. Hall | ---- | 2,259 | 1.32 | 2.05 | 2,972 |
| Aug. 11 | ----do | ---- | 1,837 | .45 | .86 | 832 |
| Oct. 1 | ----do | ---- | 1,935 | .64 | 1.28 | 1,236 |
| Nov. 19 | ----do | ---- | 1,965 | .70 | 1.37 | 1,372 |
| 1903. | | | | | | |
| Mar. 23 | O. P. Hall | --- | 4,390 | ---- | 7.60 | 24,527 |
| May 15 | M. R. Hall | --- | 1,970 | ---- | 1.90 | 2,335 |
| July 25 | O. P. Hall | --- | 1,996 | ---- | 1.40 | 1,440 |
| Aug. 22 | ----do | --- | 1,993 | ---- | 1.28 | 1,155 |
| Oct. 7 | ----do | --- | 1,808 | ---- | .92 | 615 |
| Dec. 8 | ----do | --- | 1,785 | ---- | .98 | 663 |
| 1904. | | | | | | |
| Feb. 24 | O. P. Hall | 332 | 2,197 | 1.45 | 2.32 | 3,177 |
| Feb. 25 | ----do | 331 | 2,145 | 1.23 | 2.10 | 2,632 |
| Feb. 25 | M. R. Hall | 304 | 2,017 | 1.36 | 2.10 | 2,735 |
| May 16 | O. P. Hall | 308 | 1,968 | .82 | 1.64 | 1,607 |
| Aug. 25 | ----do | 302 | 1,855 | .55 | 1.30 | 1,012 |
| Aug. 26 | ----do | 302 | 1,864 | .53 | 1.28 | 994 |
| Oct. 10 | ----do | 299 | 1,656 | .25 | .75 | 418 |
| 1905. | | | | | | |
| Apr. 12 | Olin P. Hall | 318 | 2,103 | 1.12 | 1.98 | 2,347 |
| June 19 | ----do | 311 | 1,927 | .75 | 1.56 | 1,436 |
| Oct. 6 | ----do | 299 | 1,780 | .40 | 1.07 | 708 |
| Oct. 7 | ----do | 301 | 1,794 | .40 | 1.05 | 718 |
| Dec. 30 | M. R. Hall | 320 | 2,049 | 1.29 | 2.13 | 2,634 |
| 1906. | | | | | | |
| Feb. 13 | O. P. Hall | 317 | 1,990 | ---- | 1.88 | 2,090 |
| Apr. 20 | ----do | 326 | 2,210 | ---- | 2.27 | 3,000 |
| June 13 | ----do | 330 | 2,270 | ---- | 2.38 | 3,440 |
| Nov. 2 | ----do | 319 | 2,040 | ---- | 1.92 | 2,240 |
| 1907. | | | | | | |
| May 29 | F. A. Murray | 329 | 1,979 | 1.08 | 1.82 | 2,139 |
| Oct. 9 | Olin P. Hall | 312 | 1,879 | .90 | 1.58 | 1,684 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1900.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 1.40 | 1.05 | 1.30 | 1.60 | 17 | | 2.00 | 1.00 | 1.20 | 1.50 |
| 2 | | 1.30 | 1.00 | 1.20 | 1.50 | 18 | | 1.60 | 1.00 | 1.10 | 1.50 |
| 3 | | 1.20 | 1.00 | 1.80 | 1.50 | 19 | 1.10 | 1.40 | .90 | 1.10 | 1.40 |
| 4 | | 1.05 | 1.00 | 1.30 | 2.80 | 20 | 1.05 | 1.30 | .90 | 1.20 | 1.50 |
| 5 | | 1.00 | 1.00 | 1.40 | 3.00 | 21 | 1.05 | 1.20 | 1.90 | 1.30 | 2.80 |
| 6 | | 1.10 | 1.00 | 1.50 | 2.40 | 22 | 1.05 | 1.20 | 1.00 | 1.40 | 2.80 |
| 7 | | 1.05 | 1.00 | 1.40 | 2.00 | 23 | 1.10 | 1.30 | 1.30 | 1.30 | 2.10 |
| 8 | | 1.00 | 1.30 | 1.40 | 2.00 | 24 | 1.50 | 1.30 | 4.00 | 1.50 | 2.40 |
| 9 | | 1.00 | 1.50 | 1.30 | 1.90 | 25 | 1.40 | 1.20 | 2.00 | 1.70 | 2.30 |
| 10 | | .90 | 1.20 | 1.30 | 1.80 | 26 | 1.30 | 1.10 | 1.50 | 4.50 | 2.00 |
| 11 | | .90 | 1.10 | 1.40 | 1.70 | 27 | 1.30 | 1.10 | 1.60 | 3.60 | 1.90 |
| 12 | | .90 | 1.10 | 1.30 | 1.60 | 28 | 1.15 | 1.05 | 1.50 | 2.00 | 1.90 |
| 13 | | .90 | 1.20 | 1.30 | 1.60 | 29 | 1.10 | 1.05 | 1.50 | 1.80 | 2.00 |
| 14 | | 1.00 | 1.40 | 1.30 | 1.60 | 30 | 1.10 | 1.05 | 1.40 | 1.70 | 1.90 |
| 15 | | 3.60 | 1.10 | 1.20 | 1.50 | 31 | 1.10 | | 1.30 | | 2.40 |
| 16 | | 3.50 | 1.00 | 1.20 | 1.50 | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.50 | 2.40 | 1.80 | 2.60 | 2.30 | 2.80 | 2.40 | 1.50 | 3.10 | 1.80 | 1.50 | 1.30 |
| 2 | 2.20 | 2.10 | 1.80 | 4.30 | 2.30 | 2.50 | 2.10 | 1.40 | 2.60 | 1.90 | 1.40 | 1.30 |
| 3 | 2.10 | 2.30 | 1.60 | 4.50 | 2.20 | 2.40 | 2.00 | 1.30 | 2.50 | 1.70 | 1.40 | 1.40 |
| 4 | 1.90 | 4.70 | 1.70 | 3.50 | 2.20 | 2.40 | 2.00 | 1.30 | 2.40 | 1.70 | 1.40 | 1.60 |
| 5 | 1.90 | 3.20 | 1.90 | 2.90 | 2.10 | 2.30 | 2.00 | 1.30 | 2.40 | 1.70 | 1.50 | 1.50 |
| 6 | 1.80 | 2.80 | 1.80 | 2.90 | 2.10 | 2.20 | 1.80 | 2.10 | 2.20 | 1.70 | 1.40 | 1.40 |
| 7 | 1.70 | 2.50 | 1.70 | 2.80 | 2.10 | 2.60 | 2.00 | 5.40 | 2.20 | 1.60 | 1.40 | 1.40 |
| 8 | 1.70 | 2.40 | 1.60 | 2.60 | 2.00 | 2.30 | 2.10 | 2.50 | 2.10 | 1.60 | 1.40 | 1.40 |
| 9 | 1.60 | 2.50 | 1.80 | 2.50 | 2.00 | 2.10 | 2.00 | 2.00 | 2.10 | 1.70 | 1.30 | 1.50 |
| 10 | 1.70 | 2.70 | 3.00 | 2.40 | 2.10 | 2.10 | 1.80 | 1.80 | 2.00 | 1.70 | 1.40 | 1.70 |
| 11 | 7.00 | 2.50 | 3.30 | 2.30 | 2.00 | 2.00 | 1.70 | 1.80 | 2.00 | 1.60 | 1.30 | 2.00 |
| 12 | 8.50 | 2.40 | 2.50 | 2.30 | 2.00 | 2.10 | 1.60 | 1.90 | 2.00 | 1.50 | 1.40 | 1.70 |
| 13 | 4.50 | 2.30 | 2.20 | 2.30 | 1.90 | 2.10 | 1.60 | 2.30 | 2.40 | 1.80 | 1.70 | 1.60 |
| 14 | 3.50 | 2.30 | 2.10 | 3.40 | 1.90 | 2.70 | 1.50 | 4.80 | 2.10 | 1.90 | 1.50 | 6.00 |
| 15 | 3.00 | 2.30 | 2.00 | 2.80 | 1.90 | 2.50 | 1.60 | 5.00 | 2.00 | 1.70 | 1.40 | 8.80 |
| 16 | 2.80 | 2.20 | 1.90 | 2.50 | 1.80 | 3.50 | 1.60 | 6.00 | 1.90 | 1.60 | 1.30 | 3.50 |
| 17 | 2.50 | 2.00 | 1.90 | 2.40 | 1.80 | 2.90 | 1.70 | 4.50 | 2.80 | 1.50 | 1.40 | 2.70 |
| 18 | 2.40 | 2.00 | 1.80 | 2.40 | 1.80 | 2.60 | 1.60 | 5.50 | 3.80 | 1.60 | 1.30 | 2.40 |
| 19 | 2.10 | 2.00 | 1.80 | 5.40 | 2.50 | 2.40 | 1.70 | 5.50 | 2.80 | 1.60 | 1.30 | 2.10 |
| 20 | 2.10 | 1.90 | 1.70 | 7.30 | 5.10 | 2.50 | 2.20 | 4.20 | 2.40 | 1.50 | 1.40 | 2.10 |
| 21 | 2.00 | 1.90 | 1.90 | 4.40 | 4.80 | 2.30 | 1.80 | 3.60 | 2.30 | 1.50 | 1.40 | 2.00 |
| 22 | 2.10 | 1.80 | 2.00 | 3.40 | 9.90 | 2.20 | 1.60 | 5.00 | 2.10 | 1.40 | 1.30 | 1.90 |
| 23 | 2.00 | 1.80 | 1.80 | 3.20 | 4.50 | 2.10 | 1.60 | 9.10 | 2.10 | 1.50 | 1.40 | 2.10 |
| 24 | 2.10 | 1.80 | 1.90 | 3.00 | 3.50 | 2.00 | 1.50 | 4.90 | 2.00 | 1.50 | 1.60 | 2.50 |
| 25 | 2.40 | 1.70 | 2.10 | 2.80 | 3.10 | 2.80 | 1.40 | 3.70 | 2.00 | 1.50 | 1.50 | 2.10 |
| 26 | 2.10 | 1.40 | 9.30 | 2.70 | 2.90 | 2.10 | 1.50 | 3.00 | 2.00 | 1.40 | 1.40 | 2.20 |
| 27 | 2.10 | 1.80 | 5.60 | 2.60 | 2.80 | 2.10 | 1.70 | 3.00 | 1.90 | 1.40 | 1.40 | 3.00 |
| 28 | 2.50 | 1.70 | 3.80 | 2.50 | 2.60 | 1.90 | 1.50 | 3.00 | 1.90 | 1.40 | 1.40 | 3.00 |
| 29 | 2.00 | | 3.10 | 2.40 | 2.60 | 2.20 | 1.50 | 3.30 | 2.00 | 1.50 | 1.30 | 7.70 |
| 30 | 2.10 | | 2.90 | 2.40 | 2.50 | 2.20 | 1.50 | 3.20 | 1.90 | 1.40 | 1.30 | 8.00 |
| 31 | 2.70 | | 2.90 | | 3.00 | | 1.60 | 2.90 | | 1.30 | | 5.40 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1902-1903.

| 1902. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.40 | 4.50 | 6.30 | 3.00 | 2.10 | 1.50 | 1.30 | 1.00 | 0.90 | 1.20 | 0.90 | 1.50 |
| 2 | 3.00 | 5.70 | 3.30 | 2.80 | 2.40 | 1.40 | 1.30 | 1.10 | .80 | 1.20 | .90 | 1.60 |
| 3 | 2.80 | 4.30 | 3.60 | 2.70 | 2.10 | 1.40 | 1.30 | 1.00 | .80 | 1.10 | .90 | 3.00 |
| 4 | 2.60 | 3.30 | 3.20 | 2.70 | 2.00 | 1.50 | 1.30 | 1.20 | .90 | 1.00 | .90 | 2.50 |
| 5 | 2.40 | 2.90 | 3.60 | 2.60 | 2.00 | 1.40 | 1.40 | 1.00 | 1.20 | 1.00 | .90 | 2.20 |
| 6 | 2.40 | 2.70 | 3.30 | 2.50 | 1.90 | 1.40 | 1.30 | 1.00 | 1.00 | 1.00 | .90 | 2.00 |
| 7 | 2.30 | 2.50 | 3.00 | 2.60 | 1.90 | 1.40 | 1.10 | 1.00 | .90 | 1.10 | 1.50 | 1.70 |
| 8 | 2.20 | 2.40 | 2.90 | 3.20 | 1.90 | 1.50 | 1.20 | .90 | .80 | 1.00 | 1.20 | 1.60 |
| 9 | 2.20 | 2.30 | 2.40 | 2.80 | 1.90 | 1.40 | 1.10 | .80 | .80 | .90 | 1.00 | 1.50 |
| 10 | 2.10 | 2.20 | 2.10 | 2.60 | 1.80 | 1.60 | 1.10 | .80 | .90 | .90 | 1.00 | 1.40 |
| 11 | 2.00 | 2.20 | 2.90 | 2.50 | 1.80 | 1.50 | 1.20 | .80 | 1.20 | 1.00 | 1.00 | 1.50 |
| 12 | 2.00 | 2.10 | 2.80 | 2.40 | 1.70 | 1.40 | 1.30 | .80 | 1.00 | 1.20 | 1.00 | 1.40 |
| 13 | 1.90 | 2.10 | 2.70 | 2.60 | 1.80 | 1.40 | 1.90 | .80 | .90 | 1.50 | 1.00 | 1.40 |
| 14 | 1.90 | 2.00 | 2.70 | 2.30 | 1.90 | 1.30 | 1.40 | .80 | 1.20 | 1.40 | 1.00 | 1.40 |
| 15 | 1.90 | 2.00 | 2.60 | 2.40 | 1.90 | 1.30 | 1.90 | .80 | 1.00 | 1.40 | 1.00 | 1.30 |
| 16 | 1.90 | 2.10 | 2.90 | 2.30 | 1.90 | 1.40 | 1.50 | .90 | .90 | 1.20 | 1.00 | 1.60 |
| 17 | 1.90 | 2.10 | 3.80 | 2.30 | 1.80 | 1.30 | 1.20 | .80 | .90 | 1.10 | .90 | 2.60 |
| 18 | 1.80 | 2.00 | 3.00 | 2.30 | 1.80 | 1.30 | 1.10 | .80 | .80 | 1.00 | 1.40 | 2.10 |
| 19 | 2.00 | 1.90 | 2.80 | 2.20 | 1.80 | 1.40 | 1.10 | .80 | .80 | 1.00 | 1.50 | 1.80 |
| 20 | 2.10 | 1.90 | 2.70 | 2.20 | 1.80 | 1.40 | 1.10 | .80 | 1.50 | 1.00 | 1.20 | 1.70 |
| 21 | 2.10 | 2.10 | 2.60 | 2.20 | 1.70 | 1.30 | 1.10 | .80 | 1.20 | 1.00 | 1.10 | 1.80 |
| 22 | 2.50 | 2.70 | 2.60 | 2.20 | 1.70 | 1.60 | 1.10 | .80 | 1.10 | 1.00 | 1.10 | 3.10 |
| 23 | 2.10 | 2.50 | 2.50 | 2.10 | 1.60 | 1.30 | 1.00 | .80 | 1.00 | .90 | 1.10 | 2.30 |
| 24 | 2.00 | 2.30 | 2.40 | 2.10 | 1.60 | 1.20 | 1.00 | .70 | 1.00 | .90 | 1.00 | 2.00 |
| 25 | 1.90 | 2.40 | 2.40 | 2.00 | 1.60 | 1.20 | 1.00 | .70 | 1.10 | .90 | 1.70 | 1.90 |
| 26 | 1.90 | 2.50 | 2.30 | 2.00 | 1.70 | 1.40 | 1.00 | .70 | 1.70 | .90 | 3.00 | 1.70 |
| 27 | 2.00 | 2.40 | 2.30 | 2.00 | 1.70 | 1.70 | .90 | .90 | 1.50 | .90 | 2.00 | 1.60 |
| 28 | 2.60 | 10.00 | 2.40 | 1.90 | 1.60 | 1.40 | .90 | 1.20 | 1.30 | .90 | 1.70 | 1.60 |
| 29 | 2.50 | ------- | 5.50 | 2.00 | 1.50 | 1.40 | 1.00 | 1.20 | 1.30 | 1.00 | 1.50 | 1.60 |
| 30 | 2.50 | ------- | 4.50 | 2.10 | 1.50 | 1.30 | 1.10 | 1.10 | 1.10 | .90 | 1.50 | 1.90 |
| 31 | 3.10 | ------- | 3.50 | ------- | 1.50 | ------- | 1.10 | .90 | ------- | .90 | ------ | 1.80 |
| 1903. | | | | | | | | | | | | |
| 1 | 1.80 | 1.60 | 6.70 | 3.60 | 2.30 | 2.50 | 1.70 | 1.60 | 1.10 | 0.90 | 1.10 | 1.00 |
| 2 | 1.70 | 1.60 | 4.00 | 3.20 | 2.20 | 3.40 | 1.60 | 2.10 | 1.10 | .90 | 1.00 | 1.00 |
| 3 | 2.30 | 1.70 | 3.40 | 3.10 | 2.20 | 2.50 | 1.60 | 1.70 | 1.10 | .90 | 1.10 | 1.00 |
| 4 | 3.30 | 2.90 | 3.00 | 3.40 | 2.20 | 2.30 | 1.80 | 1.60 | 1.10 | .90 | 1.00 | 1.00 |
| 5 | 2.10 | 4.00 | 2.80 | 3.00 | 2.10 | 2.70 | 1.60 | 1.60 | 1.10 | .90 | 1.20 | 1.00 |
| 6 | 2.00 | 2.80 | 3.10 | 2.90 | 2.10 | 3.60 | 1.60 | 1.60 | 1.10 | .90 | 1.30 | 1.00 |
| 7 | 1.90 | 2.60 | 2.90 | 2.70 | 2.10 | 2.80 | 1.60 | 1.60 | 1.00 | .90 | 1.20 | 1.00 |
| 8 | 1.80 | 4.30 | *4.30 | 4.70 | 2.00 | 2.40 | 1.70 | 1.50 | 1.00 | 1.20 | 1.10 | 1.00 |
| 9 | 1.70 | 3.50 | 4.40 | 3.90 | 2.00 | 2.20 | 1.80 | 1.40 | 1.10 | 1.60 | 1.10 | 1.00 |
| 10 | 1.60 | 2.90 | 4.00 | 3.10 | 2.00 | 3.40 | 1.70 | 1.40 | 1.20 | 1.10 | 1.00 | 1.00 |
| 11 | 1.70 | 3.40 | 4.00 | 2.90 | 1.90 | 2.60 | 1.80 | 1.30 | 1.10 | 1.00 | 1.00 | 1.00 |
| 12 | 2.70 | 4.70 | 4.70 | 2.80 | 1.90 | 2.30 | 1.70 | 1.40 | 1.10 | 1.00 | 1.20 | 1.00 |
| 13 | 2.00 | 3.30 | 3.70 | 3.20 | 1.90 | 2.10 | 2.80 | 1.30 | 1.00 | 1.00 | 1.30 | 1.00 |
| 14 | 1.90 | 2.80 | 3.40 | 5.20 | 1.90 | 2.00 | 3.00 | 1.40 | 1.00 | 1.00 | 1.10 | 1.10 |
| 15 | 1.80 | 2.60 | 3.10 | 4.00 | 1.90 | 1.90 | 2.20 | 1.30 | 1.00 | 1.90 | 1.10 | 1.20 |
| 16 | 1.70 | 2.70 | 2.90 | 3.50 | 1.90 | 1.80 | 1.90 | 1.50 | 1.30 | 1.00 | 1.10 | 1.10 |
| 17 | 1.70 | 7.70 | 2.80 | 3.00 | 1.80 | 1.80 | 2.00 | 1.60 | 1.50 | 1.00 | 1.10 | 1.00 |
| 18 | 1.70 | 4.10 | 2.60 | 2.80 | 1.80 | 1.70 | 1.90 | 1.50 | 1.20 | 1.10 | 2.10 | 1.00 |
| 19 | 1.60 | 3.30 | 2.50 | 2.90 | 1.80 | 1.70 | 1.70 | 1.40 | 1.10 | 1.00 | 1.50 | .90 |
| 20 | 1.50 | 2.90 | 2.50 | 2.90 | 1.70 | 1.70 | 1.60 | 1.30 | 1.10 | 1.00 | 1.20 | 1.20 |
| 21 | 1.50 | 2.70 | 2.60 | 2.90 | 1.70 | 1.70 | 1.60 | 1.50 | 1.00 | 1.10 | 1.20 | 1.50 |
| 22 | 1.50 | 2.50 | 2.90 | 2.80 | 1.80 | 1.70 | 1.50 | 1.30 | 1.00 | 1.00 | 1.10 | 1.40 |
| 23 | 1.50 | 2.40 | 8.10 | 2.60 | 1.70 | 1.80 | 1.50 | 1.20 | 1.00 | 1.00 | 1.10 | 1.20 |
| 24 | 1.50 | 2.20 | 6.00 | 2.50 | 1.70 | 1.60 | 1.50 | 1.30 | 1.00 | .90 | 1.10 | 1.10 |
| 25 | 1.50 | 2.20 | 4.10 | 2.50 | 1.60 | 1.60 | 1.40 | 1.20 | 1.00 | .90 | 1.10 | 1.10 |
| 26 | 1.50 | 2.10 | 3.50 | 2.60 | 1.60 | 1.90 | 1.40 | 1.20 | 1.00 | .90 | 1.10 | 1.20 |
| 27 | 1.50 | 2.00 | 3.20 | 2.50 | 1.60 | 2.20 | 1.40 | 1.10 | 1.00 | .90 | 1.00 | 1.50 |
| 28 | 1.60 | 9.30 | 3.00 | 2.30 | 1.60 | 2.00 | 1.30 | 1.10 | 1.00 | .90 | 1.00 | 1.30 |
| 29 | 1.60 | ------- | 2.90 | 2.30 | 1.70 | 1.90 | 1.40 | 1.10 | .90 | .90 | 1.00 | 1.20 |
| 30 | 1.70 | ------- | 5.00 | 2.20 | 1.80 | 1.80 | 1.50 | 1.20 | .90 | 1.00 | 1.00 | 1.10 |
| 31 | 1.60 | ------- | 4.60 | ------- | 2.50 | ------- | 1.80 | 1.10 | ------- | 1.10 | ------ | 1.10 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1904-1905.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 1.30 | 1.80 | 2.40 | 1.65 | 1.90 | 1.50 | 1.10 | 1.10 | 0.80 | 0.75 | 1.20 |
| 2 | 1.00 | 1.40 | 1.80 | 2.00 | 1.60 | 1.60 | 1.25 | 1.50 | 1.20 | .75 | .75 | 1.30 |
| 3 | 1.10 | 1.40 | 1.70 | 1.90 | 1.60 | 1.45 | 1.15 | 1.25 | 1.05 | .80 | .75 | 1.60 |
| 4 | 1.30 | 1.30 | 1.70 | 1.85 | 1.30 | 1.45 | 1.10 | 1.50 | 1.00 | .80 | .85 | 1.50 |
| 5 | 1.40 | 1.30 | 1.70 | 1.80 | 1.20 | 1.40 | 1.10 | 1.15 | 1.45 | .80 | 1.00 | 1.30 |
| 6 | 1.30 | 1.20 | 1.60 | 1.80 | 1.60 | 1.25 | 1.55 | 2.50 | 1.40 | .78 | 1.00 | 2.50 |
| 7 | 1.40 | 1.20 | 2.20 | 2.00 | 1.55 | 1.30 | 1.20 | 1.60 | 1.15 | .75 | .90 | 1.70 |
| 8 | 1.10 | 2.10 | 3.20 | 2.10 | 1.30 | 1.85 | 1.15 | 1.65 | 1.05 | .72 | .85 | 1.40 |
| 9 | 1.10 | 2.00 | 2.50 | 2.80 | 3.20 | 1.55 | 1.10 | 1.45 | 1.00 | .75 | .85 | 1.30 |
| 10 | 1.00 | 1.70 | 2.10 | 2.30 | 2.30 | 1.40 | 1.40 | 1.50 | .90 | .75 | .80 | 1.20 |
| 11 | 1.10 | 1.60 | 2.10 | 2.30 | 2.05 | 1.25 | 1.20 | 1.60 | 1.00 | .75 | .80 | 1.25 |
| 12 | 1.20 | 1.60 | 2.10 | 2.00 | 1.90 | 1.30 | 1.40 | 1.60 | .95 | .75 | .80 | 1.20 |
| 13 | 1.30 | 1.50 | 1.90 | 2.00 | 1.80 | 1.35 | 1.50 | 1.45 | .95 | .75 | .95 | 1.15 |
| 14 | 1.30 | 1.40 | 2.20 | 1.85 | 1.75 | 1.20 | 1.30 | 1.45 | .92 | .72 | 1.00 | 1.10 |
| 15 | 1.30 | 1.50 | 2.50 | 1.80 | 1.75 | 1.20 | 1.10 | 1.40 | .90 | .72 | 1.05 | 1.10 |
| 16 | 1.20 | 1.60 | 2.20 | 1.85 | 1.65 | 1.15 | .90 | 2.10 | .90 | .72 | .90 | 1.10 |
| 17 | 1.60 | 1.50 | 2.00 | 1.75 | 1.60 | 1.15 | 1.10 | 1.50 | .85 | .72 | .85 | 1.10 |
| 18 | 1.80 | 1.50 | 1.90 | 1.75 | 1.60 | 1.15 | 1.12 | 1.35 | .85 | .72 | .85 | 1.15 |
| 19 | 1.50 | 1.60 | 1.85 | 1.70 | 1.55 | 1.15 | 1.20 | 1.35 | .80 | .70 | .85 | 1.15 |
| 20 | 1.40 | 2.30 | 1.80 | 1.65 | 1.50 | 1.15 | .90 | 1.35 | .80 | .70 | .85 | 1.15 |
| 21 | 1.30 | 2.00 | 1.80 | 1.70 | 1.50 | 1.50 | .94 | 1.40 | .90 | .70 | .85 | 1.05 |
| 22 | 1.70 | 2.70 | 3.10 | 1.70 | 1.45 | 1.40 | 1.40 | 1.25 | .95 | .70 | .95 | 1.00 |
| 23 | 3.60 | 3.10 | 4.30 | 1.60 | 1.40 | 1.40 | 1.50 | 1.25 | .85 | .70 | 1.00 | 1.00 |
| 24 | 2.30 | 2.50 | 4.30 | 1.60 | 1.40 | 1.20 | 1.20 | 1.10 | .90 | .70 | 1.20 | 1.05 |
| 25 | 1.90 | 2.10 | 3.30 | 1.60 | 1.40 | 1.15 | 1.18 | 1.35 | .80 | .70 | 1.00 | 1.30 |
| 26 | 1.60 | 1.90 | 2.80 | 1.70 | 1.35 | 1.20 | 1.22 | 1.30 | .80 | .70 | .90 | 1.35 |
| 27 | 1.50 | 1.80 | 2.80 | 2.20 | 1.35 | 1.30 | 1.15 | 1.10 | .80 | .75 | .90 | 1.40 |
| 28 | 1.40 | 1.80 | 2.60 | 1.85 | 1.30 | 1.50 | 1.10 | 1.50 | .80 | .75 | .85 | 2.50 |
| 29 | 1.40 | 1.80 | 2.40 | 1.80 | 1.30 | 1.60 | 1.40 | 1.30 | .85 | .75 | .85 | 2.60 |
| 30 | 1.40 | ------- | 2.20 | 1.75 | 1.30 | 1.70 | 1.15 | 1.20 | .85 | .75 | 1.20 | 1.70 |
| 31 | 1.30 | ------- | 2.40 | ------- | 1.60 | ------- | 1.15 | 1.10 | ------- | .80 | ------ | 1.50 |
| 1905. | | | | | | | | | | | | |
| 1 | 1.40 | 1.40 | 2.05 | 1.80 | 2.50 | 1.90 | 2.20 | 1.30 | 1.20 | 0.95 | 1.10 | 1.35 |
| 2 | 1.40 | 1.40 | 2.00 | 1.75 | 2.30 | 1.85 | 2.00 | 1.25 | 1.35 | 1.00 | 1.10 | 1.25 |
| 3 | 1.50 | 1.35 | 1.90 | 1.70 | 2.20 | 1.85 | 1.80 | 1.25 | 1.40 | 1.05 | 1.10 | 5.50 |
| 4 | 1.75 | 1.50 | 1.85 | 1.70 | 2.15 | 1.70 | 1.55 | 1.20 | 1.60 | 1.60 | 1.10 | 3.50 |
| 5 | 1.50 | 1.90 | 1.85 | 1.80 | 2.00 | 1.65 | 1.45 | 1.20 | 1.25 | 1.55 | 1.10 | 2.30 |
| 6 | 1.50 | 2.15 | 1.80 | 1.90 | 1.95 | 1.65 | 1.60 | 1.20 | 1.20 | 1.15 | 1.10 | 1.95 |
| 7 | 2.40 | 2.10 | 1.75 | 1.85 | 2.30 | 1.60 | 1.75 | 1.20 | 1.25 | 1.05 | 1.10 | 1.75 |
| 8 | 1.90 | 2.15 | 1.75 | 1.80 | 2.20 | 1.55 | 1.50 | 1.50 | 1.15 | 1.00 | 1.15 | 1.75 |
| 9 | 1.65 | 7.20 | 1.85 | 1.80 | 2.40 | 1.55 | 1.60 | 1.60 | 1.10 | 1.00 | 1.10 | 4.70 |
| 10 | 1.55 | 3.90 | 2.50 | 1.95 | 2.20 | 1.50 | 1.40 | 1.45 | 1.20 | 1.00 | 1.10 | 3.70 |
| 11 | 1.60 | 2.85 | 2.50 | 1.80 | 2.00 | 1.45 | 1.50 | 2.05 | 1.15 | 1.80 | 1.15 | 2.80 |
| 12 | 2.90 | 2.40 | 2.20 | 2.00 | 1.90 | 1.45 | 2.30 | 2.30 | 1.20 | 2.20 | 1.10 | 2.40 |
| 13 | 5.00 | 2.80 | 2.15 | 2.20 | 1.90 | 1.50 | 3.30 | 2.00 | 1.30 | 1.45 | 1.05 | 2.10 |
| 14 | 5.50 | 3.20 | 2.00 | 2.00 | 1.95 | 1.45 | 2.40 | 1.80 | 1.20 | 1.30 | 1.05 | 1.90 |
| 15 | 3.10 | 2.70 | 1.95 | 1.90 | 1.80 | 1.45 | 2.05 | 1.80 | 1.10 | 1.20 | 1.05 | 2.10 |
| 16 | 2.10 | 2.40 | 1.90 | 2.00 | 3.20 | 1.45 | 2.05 | 1.90 | 1.10 | 1.20 | 1.05 | 2.20 |
| 17 | 1.90 | 2.25 | 1.80 | 1.90 | 3.00 | 1.60 | 1.80 | 1.40 | 1.10 | 1.25 | 1.05 | 2.00 |
| 18 | 1.80 | 2.10 | 1.80 | 1.80 | 2.50 | 1.55 | 1.90 | 1.90 | 1.05 | 1.15 | 1.05 | 1.90 |
| 19 | 1.75 | 2.00 | 1.80 | 1.75 | 2.20 | 1.55 | 1.80 | 1.60 | 1.05 | 1.20 | 1.05 | 1.80 |
| 20 | 1.65 | 2.70 | 1.80 | 1.75 | 2.00 | 1.75 | 1.75 | 1.55 | 1.15 | 1.15 | 1.15 | 1.80 |
| 21 | 1.65 | 6.30 | 2.10 | 1.70 | 2.00 | 1.75 | 1.65 | 1.40 | 1.15 | 1.15 | 1.35 | 2.60 |
| 22 | 1.60 | 3.90 | 2.90 | 1.80 | 2.00 | 2.00 | 1.70 | 1.30 | 1.10 | 1.10 | 1.25 | 2.70 |
| 23 | 1.55 | 3.20 | 2.30 | 1.70 | 2.30 | 2.00 | 1.60 | 1.30 | 1.00 | 1.10 | 1.15 | 2.50 |
| 24 | 1.50 | 2.40 | 2.10 | 1.60 | 3.70 | 2.00 | 1.45 | 2.00 | 1.00 | 1.10 | 1.10 | 3.20 |
| 25 | 1.45 | 2.60 | 2.10 | 1.60 | 2.70 | 1.70 | 1.35 | 2.00 | 1.00 | 1.10 | 1.10 | 2.60 |
| 26 | 1.50 | 2.25 | 2.00 | 1.65 | 2.40 | 1.55 | 1.45 | 1.60 | 1.00 | 1.15 | 1.20 | 2.30 |
| 27 | 1.45 | 2.25 | 1.95 | 2.15 | 2.30 | 1.50 | 1.35 | 1.50 | 1.00 | 1.30 | 1.20 | 2.20 |
| 28 | 1.35 | 2.15 | 1.90 | 2.30 | 2.10 | 1.70 | 1.35 | 1.50 | 1.00 | 1.25 | 1.15 | 2.00 |
| 29 | 1.40 | ------- | 1.80 | 3.50 | 2.00 | 1.50 | 1.45 | 1.35 | .95 | 1.25 | 1.15 | 2.00 |
| 30 | 1.50 | ------- | 1.85 | 2.80 | 1.95 | 1.70 | 1.45 | 1.30 | .95 | 1.15 | 1.30 | 2.00 |
| 31 | 1.45 | ------- | 1.85 | ------- | 2.00 | ------- | 1.40 | 1.35 | ------- | 1.15 | ------ | 1.90 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1906-1907.

| 1906. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.85 | 2.35 | 1.70 | 3.10 | 2.05 | 1.50 | 1.70 | 2.90 | 3.00 | 5.40 | 1.95 | 2.30 |
| 2 | 1.80 | 2.25 | 1.70 | 2.25 | 2.00 | 1.75 | 1.60 | 3.10 | 2.60 | 3.90 | 1.95 | 2.25 |
| 3 | 1.95 | 2.20 | 2.10 | 2.50 | 1.95 | 2.00 | 1.60 | 2.85 | 2.40 | 4.50 | 1.90 | 2.25 |
| 4 | 6.30 | 2.10 | 2.80 | 2.40 | 2.10 | 1.80 | 1.75 | 2.75 | 2.35 | 4.20 | 1.90 | 2.25 |
| 5 | 3.60 | 2.05 | 2.30 | 2.30 | 2.00 | 1.90 | 1.75 | 2.50 | 2.25 | 4.20 | 1.90 | 2.30 |
| 6 | 2.90 | 2.05 | 2.10 | 2.20 | 1.95 | 2.15 | 1.60 | 2.30 | 2.65 | 3.40 | 1.90 | 2.10 |
| 7 | 2.50 | 2.00 | 2.00 | 2.15 | 2.00 | 1.90 | 1.55 | 2.70 | 2.25 | 4.00 | 1.85 | 2.50 |
| 8 | 2.30 | 2.00 | 2.05 | 2.20 | 2.05 | 1.75 | 1.65 | 2.30 | 2.25 | 3.40 | 1.85 | 2.20 |
| 9 | 2.70 | 1.95 | 2.15 | 2.50 | 1.95 | 1.65 | 1.65 | 2.15 | 2.25 | 3.00 | 1.80 | 2.15 |
| 10 | 2.35 | 1.90 | 2.00 | 3.40 | 1.90 | 1.50 | 1.75 | 2.00 | 2.25 | 2.80 | 1.80 | 2.10 |
| 11 | 2.20 | 1.85 | 1.90 | 2.45 | 1.85 | 1.50 | 1.55 | 1.95 | 2.20 | 2.35 | 1.85 | 3.20 |
| 12 | 2.30 | 1.85 | 1.85 | 2.50 | 1.80 | 1.50 | 1.65 | 1.90 | 2.65 | 2.25 | 2.00 | 2.30 |
| 13 | 2.35 | 1.90 | 1.85 | 2.30 | 1.80 | 2.05 | 1.65 | 1.85 | 2.25 | 2.00 | 1.85 | 2.40 |
| 14 | 2.30 | 1.85 | 1.85 | 2.25 | 1.75 | 2.80 | 2.30 | 1.85 | 2.15 | 2.40 | 1.80 | 2.30 |
| 15 | 2.20 | 1.85 | 3.00 | 3.65 | 1.70 | 2.50 | 5.00 | 2.25 | 2.00 | 2.30 | 1.85 | 2.25 |
| 16 | 2.20 | 1.80 | 3.60 | 3.10 | 1.65 | 3.60 | 3.20 | 2.30 | 1.95 | 2.30 | 1.85 | 2.20 |
| 17 | 2.15 | 1.75 | 2.85 | 2.60 | 1.65 | 2.70 | 2.90 | 2.00 | 1.85 | 2.25 | 1.90 | 2.25 |
| 18 | 2.10 | 1.75 | 2.45 | 2.50 | 1.60 | 2.30 | 5.40 | 2.00 | 1.85 | 2.40 | 2.70 | 3.90 |
| 19 | 2.35 | 1.75 | 2.45 | 2.40 | 1.60 | 2.10 | 3.70 | 2.00 | 3.50 | 3.40 | 15.20 | 3.00 |
| 20 | 2.15 | 1.70 | 4.00 | 2.20 | 1.55 | 2.00 | 3.10 | 2.35 | 2.90 | 2.35 | 7.00 | 2.85 |
| 21 | 2.05 | 1.80 | 3.20 | 2.25 | 1.55 | 1.90 | 3.00 | 2.60 | 2.50 | 2.40 | 4.10 | 2.75 |
| 22 | 2.40 | 2.00 | 2.60 | 2.20 | 1.55 | 1.80 | 4.10 | 2.15 | 2.85 | 2.30 | 3.50 | 2.65 |
| 23 | 6.90 | 1.85 | 2.50 | 2.10 | 1.55 | 1.70 | 3.30 | 2.30 | 2.55 | 2.25 | 3.10 | 2.55 |
| 24 | 4.00 | 1.80 | 2.40 | 2.05 | 1.50 | 1.75 | 2.75 | 2.25 | 2.85 | 2.20 | 2.90 | 2.40 |
| 25 | 3.20 | 1.75 | 2.35 | 2.00 | 1.45 | 2.50 | 2.50 | 2.30 | 2.50 | 2.20 | 2.70 | 2.30 |
| 26 | 2.25 | 1.75 | 2.35 | 2.00 | 1.60 | 2.20 | 2.40 | 2.25 | 2.40 | 2.15 | 2.60 | 2.35 |
| 27 | 2.90 | 1.80 | 2.20 | 2.10 | 2.40 | 2.00 | 2.40 | 2.00 | 2.25 | 2.10 | 2.50 | 2.20 |
| 28 | 2.70 | 1.80 | 2.20 | 2.20 | 1.90 | 1.90 | 2.10 | 2.10 | 2.25 | 2.00 | 2.40 | 2.40 |
| 29 | 2.60 | ------ | 2.30 | 2.30 | 1.75 | 1.85 | 2.00 | 2.05 | 2.25 | 2.05 | 2.35 | 4.20 |
| 30 | 2.50 | ------ | 2.90 | 2.05 | 1.65 | 1.70 | 2.40 | 3.80 | 5.20 | 2.00 | 2.30 | 3.30 |
| 31 | 2.40 | ------ | 3.20 | ------ | 1.55 | ------ | 2.35 | 3.90 | ------ | 2.00 | ------ | 3.80 |
| 1907. | | | | | | | | | | | | |
| 1 | 3.70 | 2.30 | 2.50 | 2.30 | 2.05 | 3.15 | 1.85 | 1.75 | 1.30 | 1.90 | 1.30 | 1.80 |
| 2 | 3.20 | 4.60 | 3.00 | 2.00 | 2.00 | 2.90 | 1.80 | 1.60 | 1.35 | 1.70 | 1.35 | 1.70 |
| 3 | 2.90 | 3.20 | 3.60 | 1.90 | 1.95 | 2.50 | 1.75 | 1.55 | 1.30 | 1.65 | 1.25 | 1.65 |
| 4 | 2.80 | 2.75 | 2.90 | 1.95 | 2.05 | 2.30 | 1.80 | 1.45 | 1.40 | 1.65 | 1.55 | 1.65 |
| 5 | 2.60 | 4.00 | 2.65 | 1.85 | 2.00 | 2.15 | 1.85 | 1.45 | 1.40 | 1.60 | 1.40 | 1.60 |
| 6 | 2.60 | 3.30 | 2.50 | 2.10 | 2.05 | 2.00 | 1.70 | 1.50 | 1.30 | 1.60 | 1.30 | 1.60 |
| 7 | 2.46 | 2.80 | 2.40 | 2.20 | 2.25 | 1.90 | 1.60 | 1.55 | 1.25 | 1.50 | 1.35 | 1.55 |
| 8 | 2.40 | 2.60 | 2.50 | 2.00 | 2.60 | 2.05 | 1.50 | 1.50 | 1.25 | 1.50 | 1.40 | 1.55 |
| 9 | 2.35 | 2.55 | 2.55 | 2.05 | 2.20 | 3.10 | 1.50 | 1.50 | 1.30 | 1.60 | 1.35 | 1.50 |
| 10 | 2.30 | 2.40 | 2.35 | 2.00 | 2.00 | 2.30 | 1.50 | 1.40 | 1.40 | 1.60 | 1.60 | 2.60 |
| 11 | 2.25 | 2.35 | 2.65 | 1.90 | 2.70 | 2.20 | 1.40 | 1.35 | 1.75 | 1.40 | 2.40 | 2.40 |
| 12 | 2.25 | 2.25 | 2.40 | 1.85 | 2.70 | 2.10 | 1.70 | 1.35 | 1.40 | 1.40 | 1.85 | 2.05 |
| 13 | 2.20 | 2.20 | 2.35 | 2.00 | 2.30 | 1.90 | 3.10 | 1.55 | 1.35 | 1.30 | 1.70 | 1.90 |
| 14 | 2.15 | 2.15 | 2.35 | 1.90 | 2.15 | 2.20 | 2.30 | 1.50 | 1.35 | 1.35 | 1.60 | 2.15 |
| 15 | 2.10 | 2.15 | 2.60 | 1.80 | 2.10 | 2.00 | 2.00 | 1.70 | 1.20 | 1.35 | 1.55 | 2.70 |
| 16 | 2.10 | 2.05 | 2.35 | 1.85 | 2.50 | 1.90 | 1.90 | 2.70 | 1.20 | 1.35 | 1.55 | 2.40 |
| 17 | 2.10 | 2.05 | 2.25 | 2.05 | 2.15 | 1.80 | 1.85 | 1.80 | 1.20 | 1.35 | 1.45 | 2.15 |
| 18 | 2.10 | 2.00 | 2.20 | 1.95 | 2.10 | 1.80 | 1.75 | 2.00 | 1.20 | 1.30 | 1.40 | 2.05 |
| 19 | 2.05 | 2.00 | 2.15 | 2.15 | 1.95 | 1.90 | 1.85 | 2.40 | 1.20 | 1.30 | 1.75 | 2.00 |
| 20 | 2.15 | 2.10 | 2.10 | 2.35 | 2.00 | 1.80 | 1.80 | 1.80 | 1.15 | 1.30 | 1.60 | 1.90 |
| 21 | 2.40 | 2.00 | 2.05 | 2.05 | 1.90 | 1.85 | 1.70 | 1.60 | 1.15 | 1.25 | 1.85 | 1.85 |
| 22 | 2.05 | 2.00 | 2.00 | 2.00 | 1.80 | 1.85 | 1.55 | 1.70 | 1.15 | 1.30 | 2.00 | 2.05 |
| 23 | 2.00 | 2.05 | 2.00 | 2.15 | 1.80 | 1.85 | 1.50 | 2.00 | 3.00 | 1.30 | 1.80 | 2.35 |
| 24 | 2.00 | 2.00 | 1.95 | 2.95 | 1.80 | 2.00 | 1.50 | 2.00 | 3.10 | 1.30 | 4.40 | 2.70 |
| 25 | 2.00 | 2.10 | 1.95 | 2.50 | 1.85 | 2.05 | 1.45 | 1.80 | 2.00 | 1.35 | 3.00 | 2.40 |
| 26 | 2.00 | 2.15 | 2.00 | 2.30 | 2.00 | 2.10 | 1.50 | 1.60 | 1.70 | 1.30 | 2.50 | 2.25 |
| 27 | 2.00 | 2.80 | 1.95 | 2.25 | 2.70 | 2.05 | 1.50 | 1.50 | 1.55 | 1.35 | 2.20 | 2.15 |
| 28 | 1.95 | 2.40 | 1.90 | 2.20 | 2.00 | 1.95 | 1.50 | 1.40 | 1.70 | 1.65 | 2.00 | 2.05 |
| 29 | 1.90 | ------ | 1.90 | 2.10 | 1.85 | 1.80 | 1.50 | 1.45 | 1.75 | 1.35 | 1.90 | 2.05 |
| 30 | 1.90 | ------ | 1.85 | 2.10 | 1.80 | 2.00 | 3.90 | 1.50 | 2.25 | 1.25 | 1.85 | 2.60 |
| 31 | 1.90 | ------ | 1.95 | ------ | 1.90 | ------ | 2.10 | 1.35 | ------ | 1.25 | ------ | 3.80 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT RELIANCE, TENN., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.90 | 2.95 | 2.30 | 2.45 | 2.55 | 1.85 | 1.35 | 1.30 | 1.25 | 1.05 |
| 2 | 2.60 | 2.95 | 2.30 | 2.40 | 2.35 | 1.75 | 1.30 | 1.25 | 1.25 | 1.00 |
| 3 | 2.40 | 2.40 | 2.50 | 2.35 | 2.25 | 1.75 | 1.40 | 1.20 | 1.20 | 1.00 |
| 4 | 2.40 | 2.35 | 2.40 | 2.25 | 2.20 | 2.45 | 2.10 | 1.20 | 1.20 | 1.00 |
| 5 | 4.40 | 2.25 | 2.40 | 2.30 | 2.25 | 2.50 | 2.55 | 1.50 | 1.25 | 1.00 |
| 6 | 3.20 | 2.30 | 2.35 | 2.45 | 2.30 | 2.10 | 2.10 | 1.55 | 2.50 | 1.00 |
| 7 | 2.90 | 2.30 | 2.30 | 2.40 | 2.50 | 2.00 | 1.95 | 1.80 | 1.50 | 1.00 |
| 8 | 2.75 | 2.20 | 2.25 | 2.25 | 2.80 | 1.80 | 2.00 | 1.60 | 1.45 | 1.00 |
| 9 | 2.50 | 2.15 | 2.20 | 2.20 | 2.50 | 1.75 | 1.90 | 1.65 | 1.30 | 1.05 |
| 10 | 2.35 | 2.25 | 2.20 | 2.15 | 2.35 | 1.70 | 2.20 | 1.75 | 1.25 | 1.35 |
| 11 | 2.25 | 2.95 | 2.15 | 2.10 | 2.25 | 1.75 | 2.10 | 1.40 | 1.20 | 1.65 |
| 12 | 5.40 | 2.60 | 3.10 | 2.10 | 2.30 | 1.80 | 1.90 | 1.30 | 1.20 | 1.25 |
| 13 | 3.90 | 2.70 | 2.95 | 2.05 | 2.10 | 1.65 | 1.70 | 1.30 | 1.20 | 1.15 |
| 14 | 2.30 | 2.85 | 2.65 | 2.00 | 2.05 | 1.80 | 1.65 | 1.25 | 1.15 | 1.15 |
| 15 | 2.80 | 4.20 | 2.50 | 2.10 | 2.00 | 2.05 | 1.55 | 1.25 | 1.15 | 1.15 |
| 16 | 2.70 | 4.70 | 2.40 | 3.00 | 2.00 | 1.80 | 1.50 | 1.20 | 1.15 | 1.10 |
| 17 | 2.90 | 3.60 | 2.35 | 2.55 | 2.00 | 1.65 | 1.60 | 1.20 | 1.15 | 1.05 |
| 18 | 2.65 | 3.00 | 2.25 | 2.50 | 2.00 | 1.60 | 1.45 | 1.15 | 1.10 | 1.05 |
| 19 | 2.55 | 2.85 | 2.25 | 3.00 | 2.40 | 1.60 | 1.60 | 1.20 | 1.10 | 1.05 |
| 20 | 2.40 | 2.85 | 2.35 | 2.70 | 2.20 | 1.60 | 1.60 | 1.50 | 1.10 | 1.00 |
| 21 | 2.35 | 2.60 | 3.60 | 2.50 | 2.05 | 1.60 | 1.40 | 1.40 | 1.05 | 1.05 |
| 22 | 2.30 | 2.50 | 2.90 | 2.35 | 1.95 | 1.60 | 1.40 | 1.80 | 1.05 | 1.05 |
| 23 | 2.25 | 2.40 | 2.40 | 2.25 | 1.90 | 1.60 | 1.30 | 2.20 | 1.05 | 1.05 |
| 24 | 2.15 | 2.30 | 7.70 | 2.20 | 1.95 | 1.50 | 1.55 | 1.80 | 1.05 | 1.05 |
| 25 | 2.05 | 2.50 | 4.30 | 2.40 | 1.95 | 1.50 | 1.45 | 1.95 | 1.05 | 1.55 |
| 26 | 2.05 | 2.50 | 3.50 | 4.00 | 2.00 | 1.45 | 1.30 | 1.80 | 1.05 | 1.30 |
| 27 | 2.20 | 2.50 | 3.10 | 3.00 | 1.95 | 1.40 | 1.30 | 1.75 | 1.00 | 1.20 |
| 28 | 2.25 | 2.40 | 2.90 | 2.55 | 1.90 | 1.40 | 1.25 | 1.60 | 1.05 | 1.25 |
| 29 | 2.20 | 2.30 | 2.70 | 2.25 | 2.00 | 1.35 | 1.35 | 1.35 | 1.00 | 1.35 |
| 30 | 2.10 | ..... | 2.65 | 2.45 | 1.90 | 1.35 | 1.70 | 1.35 | 1.00 | 2.05 |
| 31 | 2.05 | ..... | 2.50 | ..... | 2.00 | ..... | 1.35 | 1.35 | ..... | 1.75 |

RATING TABLE FOR HIWASSEE RIVER AT RELIANCE, TENN., FOR 1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 1,030 | 2.0 | 2,450 | 3.0 | 4,200 | 4.0 | 5,950 |
| 1.2 | 1,180 | 2.2 | 2,800 | 3.2 | 4,550 | 4.2 | 6,300 |
| 1.4 | 1,415 | 2.4 | 3,150 | 3.4 | 4,900 | 4.4 | 6,650 |
| 1.6 | 1,750 | 2.6 | 3,500 | 3.6 | 5,250 | | |
| 1.8 | 2,100 | 2.8 | 3,850 | 3.8 | 5,600 | | |

RATING TABLE FOR HIWASSEE RIVER AT RELIANCE, TENN., FOR 1901 AND 1902.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.8 | 780 | 2.4 | 3,620 | 4.0 | 9,300 | 5.6 | 16,880 |
| 1.0 | 970 | 2.6 | 4,190 | 4.2 | 10,190 | 5.8 | 17,840 |
| 1.2 | 1,205 | 2.8 | 4,800 | 4.4 | 11,120 | 6.0 | 18,800 |
| 1.4 | 1,485 | 3.0 | 5,450 | 4.6 | 12,080 | 6.5 | 21,200 |
| 1.6 | 1,805 | 3.2 | 6,140 | 4.8 | 13,040 | 7.0 | 23,600 |
| 1.8 | 2,170 | 3.4 | 6,870 | 5.0 | 14,000 | 8.0 | 28,400 |
| 2.0 | 2,600 | 3.6 | 7,640 | 5.2 | 14,960 | | |
| 2.2 | 3,090 | 3.8 | 8,450 | 5.4 | 15,920 | | |

RATING TABLE FOR HIWASSEE RIVER AT RELIANCE, TENN., FOR 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.9 | 590 | 3.1 | 5,790 | 5.3 | 14,890 | 7.5 | 24,350 |
| 1.0 | 735 | 3.2 | 6,140 | 5.4 | 15,320 | 7.6 | 24,780 |
| 1.1 | 885 | 3.3 | 6,500 | 5.5 | 15,750 | 7.7 | 25,210 |
| 1.2 | 1,040 | 3.4 | 6,870 | 5.6 | 16,180 | 7.8 | 25,640 |
| 1.3 | 1,200 | 3.5 | 7,250 | 5.7 | 16,610 | 7.9 | 26,070 |
| 1.4 | 1,370 | 3.6 | 7,640 | 5.8 | 17,040 | 8.0 | 26,500 |
| 1.5 | 1,550 | 3.7 | 8,040 | 5.9 | 17,470 | 8.1 | 26,930 |
| 1.6 | 1,740 | 3.8 | 8,450 | 6.0 | 17,900 | 8.2 | 27,360 |
| 1.7 | 1,940 | 3.9 | 8,870 | 6.1 | 18,330 | 8.3 | 27,790 |
| 1.8 | 2,150 | 4.0 | 9,300 | 6.2 | 18,760 | 8.4 | 28,220 |
| 1.9 | 2,370 | 4.1 | 9,730 | 6.3 | 19,190 | 8.5 | 28,650 |
| 2.0 | 2,600 | 4.2 | 10,160 | 6.4 | 19,620 | 8.6 | 29,080 |
| 2.1 | 2,840 | 4.3 | 10,590 | 6.5 | 20,050 | 8.7 | 29,510 |
| 2.2 | 3,090 | 4.4 | 11,020 | 6.6 | 20,480 | 8.8 | 29,940 |
| 2.3 | 3,350 | 4.5 | 11,450 | 6.7 | 20,910 | 8.9 | 30,370 |
| 2.4 | 3,620 | 4.6 | 11,880 | 6.8 | 21,340 | 9.0 | 30,800 |
| 2.5 | 3,900 | 4.7 | 12,310 | 6.9 | 21,770 | 9.1 | 31,230 |
| 2.6 | 4,190 | 4.8 | 12,740 | 7.0 | 22,200 | 9.2 | 31,660 |
| 2.7 | 4,490 | 4.9 | 13,170 | 7.1 | 22,630 | 9.3 | 32,090 |
| 2.8 | 4,800 | 5.0 | 13,600 | 7.2 | 23,060 | | |
| 2.9 | 5,120 | 5.1 | 14,030 | 7.3 | 23,490 | | |
| 3.0 | 5,450 | 5.2 | 14,460 | 7.4 | 23,920 | | |

RATING TABLE FOR HIWASSEE RIVER AT RELIANCE, TENN., 1904-1906.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.70 | 380 | 1.70 | 1,725 | 2.60 | 4,090 | 3.50 | 7,300 |
| 0.80 | 460 | 1.80 | 1,940 | 2.70 | 4,410 | 3.60 | 7,690 |
| 0.90 | 550 | 1.90 | 2,165 | 2.80 | 4,745 | 3.70 | 8,080 |
| 1.00 | 655 | 2.00 | 2,400 | 2.90 | 5,090 | 3.80 | 8,475 |
| 1.10 | 770 | 2.10 | 2,650 | 3.00 | 5,445 | 3.90 | 8,875 |
| 1.20 | 895 | 2.20 | 2,915 | 3.10 | 5,805 | 4.00 | 9,280 |
| 1.30 | 1,030 | 2.30 | 3,190 | 3.20 | 6,170 | 4.20 | 10,090 |
| 1.40 | 1,180 | 2.40 | 3,480 | 3.30 | 6,540 | 4.40 | 10,910 |
| 1.50 | 1,345 | 2.50 | 3,780 | 3.40 | 6,915 | 4.60 | 11,730 |
| 1.60 | 1,525 | | | | | | |

NOTE.—The above table is based on 12 discharge measurements made during 1904-5, and 1 measurement made in 1901. It is well defined between gage heights 0.7 foot and 2.3 feet. Above gage height 4.2 feet the rating curve is a tangent, the difference being 410 per tenth.

ESTIMATED MONTHLY DISCHARGE OF HIWASSEE RIVER AT RELIANCE, TENN.

[Drainage area, 1,180 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | | |
| August 1 to 31 | ------ | ----- | 1,173 | 34,899 | 1.00 | 0.56 |
| September | 5,250 | 970 | 1,461 | 86,936 | 1.24 | 1.38 |
| October | 5,950 | 970 | 1,431 | 87,989 | 1.21 | 1.40 |
| November | 6,825 | 1,100 | 1,749 | 104,073 | 1.48 | 1.65 |
| December | 4,200 | 1,415 | 2,360 | 145,111 | 2.00 | 2.31 |
| 1901. | | | | | | |
| January | 30,800 | 1,805 | 5,015 | ------- | 4.25 | 4.91 |
| February | 12,560 | 1,485 | 3,448 | ------- | 2.92 | 3.04 |
| March | 34,640 | 1,805 | 4,595 | ------- | 3.89 | 4.49 |
| April | 25,040 | 3,350 | 6,282 | ------- | 5.32 | 5.93 |
| May | 37,520 | 2,170 | 5,468 | ------- | 4.63 | 5.35 |
| June | 7,250 | 2,375 | 3,576 | ------- | 3.03 | 3.38 |
| July | 3,620 | 1,485 | 2,116 | ------- | 1.79 | 2.06 |
| August | 33,680 | 1,340 | 8,190 | ------- | 6.94 | 8.00 |
| September | 5,790 | 2,375 | 3,348 | ------- | 2.84 | 3.17 |
| October | 2,375 | 1,340 | 1,796 | ------- | 1.52 | 1.75 |
| November | 1,805 | 1,340 | 1,494 | ------- | 1.27 | 1.42 |
| December | 32,240 | 1,340 | 6,257 | ------- | 5.30 | 6.12 |
| The year | 37,520 | 1,340 | 4,299 | ------- | 3.68 | 49.62 |

RATING TABLE FOR HIWASSEE RIVER AT RELIANCE, TENN., FOR 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 930 | 2.00 | 2,570 | 2.90 | 5,140 | 3.80 | 8,475 |
| 1.20 | 1,070 | 2.10 | 2,820 | 3.00 | 5,470 | 3.90 | 8,875 |
| 1.30 | 1,220 | 2.20 | 3,080 | 3.10 | 5,820 | 4.00 | 9,280 |
| 1.40 | 1,380 | 2.30 | 3,350 | 3.20 | 6,180 | 4.10 | 9,685 |
| 1.50 | 1,550 | 2.40 | 3,630 | 3.30 | 6,550 | 4.20 | 10,090 |
| 1.60 | 1,730 | 2.50 | 3,920 | 3.40 | 6,920 | 4.30 | 10,500 |
| 1.70 | 1,920 | 2.60 | 4,210 | 3.50 | 7,300 | 4.40 | 10,910 |
| 1.80 | 2,120 | 2.70 | 4,510 | 3.60 | 7,690 | 4.50 | 11,320 |
| 1.90 | 2,340 | 2.80 | 4,820 | 3.70 | 8,080 | 4.60 | 11,730 |

The above table is applicable only for open channel conditions. It is based upon 3 discharge measurements made during 1907, and the form of the 1904–1906 discharge curve. It is well defined.

ESTIMATED MONTHLY DISCHARGE OF HIWASSEE RIVER AT RELIANCE, TENN.

[Drainage area, 1,180 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1902. | | | | | |
| January | 6,870 | 2,170 | 3,320 | 2.81 | 3.24 |
| February | 38,000 | 2,375 | 5,729 | 4.86 | 5.06 |
| March | 20,240 | 2,840 | 6,070 | 5.14 | 5.92 |
| April | 6,140 | 2,375 | 3,634 | 3.08 | 3.44 |
| May | 3,620 | 1,640 | 2,205 | 1.87 | 2.16 |
| June | 1,980 | 1,205 | 1,491 | 1.26 | 1.41 |
| July | 2,375 | 870 | 1,239 | 1.05 | 1.21 |
| August | 1,205 | 700 | 875 | .74 | .85 |
| September | 1,980 | 780 | 1,054 | .89 | .99 |
| October | 1,640 | 870 | 1,034 | .88 | 1.01 |
| November | 5,450 | 870 | 1,351 | 1.14 | 1.27 |
| December | 5,790 | 1,340 | 2,388 | 2.02 | 2.33 |
| The year | 38,000 | 700 | 2,532 | 2.14 | 28.89 |
| 1903. | | | | | |
| January | 6,500 | 1,550 | 2,202 | 1.87 | 2.16 |
| February | 32,090 | 1,740 | 6,901 | 5.85 | 6.09 |
| March | 26,930 | 3,900 | 8,603 | 7.29 | 8.40 |
| April | 14,460 | 3,090 | 5,861 | 4.97 | 5.55 |
| May | 3,900 | 1,740 | 2,402 | 2.04 | 2.35 |
| June | 7,640 | 1,740 | 3,203 | 2.72 | 3.03 |
| July | 5,450 | 1,200 | 2,066 | 1.75 | 2.02 |
| August | 2,840 | 885 | 1,393 | 1.18 | 1.36 |
| September | 1,550 | 590 | 843 | .71 | .79 |
| October | 2,370 | 590 | 789 | .67 | .77 |
| November | 2,840 | 735 | 979 | .83 | .93 |
| December | 1,550 | 590 | 893 | .76 | .88 |
| The year | 32,090 | 590 | 3,011 | 2.55 | 34.33 |
| 1904. | | | | | |
| January | 7,690 | 655 | 1,402 | 1.19 | 1.37 |
| February | 5,805 | 895 | 1,962 | 1.66 | 1.79 |
| March | 10,500 | 1,525 | 3,563 | 3.02 | 3.48 |
| April | 4,745 | 1,525 | 2,217 | 1.88 | 2.10 |
| May | 6,170 | 895 | 1,635 | 1.39 | 1.60 |
| June | 2,165 | 833 | 1,169 | .991 | 1.11 |
| July | 1,435 | 550 | 930 | .788 | .908 |
| August | 3,780 | 770 | 1,280 | 1.08 | 1.24 |
| September | 1,263 | 460 | 625 | .530 | .591 |
| October | 460 | 380 | 412 | .349 | .402 |
| November | 895 | 420 | 562 | .476 | .531 |
| December | 4,090 | 655 | 1,281 | 1.09 | 1.26 |
| The year | 10,500 | 380 | 1,420 | 1.20 | 16.38 |
| 1905. | | | | | |
| January | 15,440 | 1,105 | 2,680 | 2.27 | 2.62 |
| February | 22,700 | 1,105 | 4,886 | 4.14 | 4.31 |
| March | 5,090 | 1,832 | 2,446 | 2.07 | 2.39 |
| April | 7,300 | 1,525 | 2,320 | 1.97 | 2.20 |
| May | 8,080 | 1,940 | 3,174 | 2.69 | 3.10 |
| June | 2,400 | 1,262 | 1,640 | 1.39 | 1.55 |
| July | 6,540 | 1,105 | 1,912 | 1.62 | 1.87 |
| August | 3,190 | 895 | 1,504 | 1.27 | 1.46 |
| September | 1,525 | 602 | 832 | .705 | .787 |
| October | 2,915 | 602 | 976 | .827 | .953 |
| November | 1,105 | 712 | 803 | .681 | .760 |
| December | 15,440 | 962 | 3,846 | 3.26 | 3.76 |
| The year | 22,700 | 602 | 2,252 | 1.91 | 25.77 |

MONTHLY DISCHARGE OF HIWASSEE RIVER AT RELIANCE, TENN.—*Continued.*

[Drainage area, 1,180 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1906. | | | | | |
| January | 21,200 | 1,940 | 4,810 | 4.08 | 4.70 |
| February | 3,330 | 1,720 | 2,200 | 1.86 | 1.94 |
| March | 9,280 | 1,720 | 3,680 | 3.12 | 3.60 |
| April | 7,880 | 2,400 | 3,580 | 3.03 | 3.38 |
| May | 3,480 | 1,260 | 1,940 | 1.64 | 1.89 |
| June | 7,690 | 1,340 | 2,540 | 2.15 | 2.40 |
| July | 15,000 | 1,430 | 4,090 | 3.47 | 4.00 |
| August | 8,880 | 2,050 | 3,540 | 3.00 | 3.46 |
| September | 14,200 | 2,050 | 3,970 | 3.36 | 3.75 |
| October | 15,000 | 2,400 | 4,990 | 4.23 | 4.88 |
| November | 55,200 | 1,940 | 5,580 | 4.73 | 5.28 |
| December | 10,100 | 2,650 | 4,160 | 3.53 | 4.07 |
| The year | 55,200 | 1,260 | 3,760 | 3.18 | 43.35 |
| 1907. | | | | | |
| January | 8,080 | 2,340 | 3,390 | 2.87 | 3.31 |
| February | 11,700 | 2,570 | 4,000 | 3.39 | 3.53 |
| March | 7,690 | 2,230 | 3,470 | 2.94 | 3.39 |
| April | 5,300 | 2,120 | 2,830 | 2.40 | 2.68 |
| May | 4,510 | 2,120 | 2,870 | 2.43 | 2.80 |
| June | 6,000 | 2,120 | 2,920 | 2.47 | 2.76 |
| July | 8,880 | 1,380 | 2,290 | 1.94 | 2.24 |
| August | 4,510 | 1,300 | 1,890 | 1.60 | 1.84 |
| September | 5,820 | 1,000 | 1,740 | 1.47 | 1.64 |
| October | 2,340 | 1,140 | 1,440 | 1.22 | 1.41 |
| November | 10,900 | 1,140 | 2,350 | 1.99 | 2.22 |
| December | 8,480 | 1,550 | 2,950 | 2.50 | 2.88 |
| The year | 11,700 | 1,000 | 2,680 | 2.27 | 30.70 |

NOTE.—Values for 1906 are excellent.

## HIWASSEE RIVER AT MURPHY, N. C.

This station was established July 26, 1896. It is located at the highway bridge, Murphy, N. C., about 80 feet above the Atlanta, Knoxville and Northern Railroad bridge and one-half mile above the mouth of Valley River.

The channel is straight for about 500 feet above and below the station. The right bank is high and rocky and will not overflow. The left bank will overflow for a short distance around the abutment. The bed of the stream is rocky and rough, and makes soundings uncertain. The bed is permanent and the flow is rapid.

Discharge measurements are made from the sidewalk on the upstream side of the single-span highway bridge. The bridge is 195 feet long, supported by stone abutments. The initial point for soundings is the end of the iron hand rail on the right bank, upstream side of the bridge.

A standard chain gage is fastened to the bridge members above the downstream end of the first iron floor beam from the right bank in the space between the bridge floor and the lower chords; length of chain, 30.80 feet. The gage is read once each day by William Mingus. Bench

marks were established as follows: (1) The downstream side of the top of the stone pier at the right bank; elevation, 22.55 feet. (2) The top of the downstream end of the first iron floor beam from the right end of the bridge; elevation, 25.05 feet. (3) A cut with large nail on a large white-oak tree in the grounds of the Atlanta, Knoxville and Northern Railroad station, on the left side of the street leading from the highway bridge to the town and 325 feet from the end of the bridge; elevation, 31.57 feet. Elevations refer to the datum of the gage.

Discharge Measurements of Hiwassee River at Murphy, N. C.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1896. | | | |
| June 23 | E. W. Myers | 3.82 | 366 |
| Aug. 10 | ----do | 3.95 | 382 |
| Sept. 22 | ----do | 4.01 | 517 |
| 1897. | | | |
| Aug. 20 | E. W. Myers | 5.33 | 528 |
| Oct. 14 | ----do | 4.76 | 267 |
| Oct. 29 | A. P. Davis | 4.71 | 253 |
| 1898. | | | |
| Jan. 21 | E. W. Myers | 6.05 | 1,170 |
| Sept. 8 | ----do | 6.80 | 1,620 |
| 1899. | | | |
| Feb. 28 | E. W. Myers | 7.50 | 2,150 |
| June 23 | ----do | 5.17 | 400 |
| June 23 | ----do | 5.30 | 436 |
| Sept. 28 | ----do | 4.93 | 304 |
| Sept. 28 | ----do | 5.00 | 345 |
| Dec. 7 | ----do | 5.10 | 317 |
| Dec. 29 | ----do | 5.50 | 613 |
| 1900. | | | |
| Feb. 11 | E. W. Myers | 6.10 | 1,534 |
| Feb. 14 | ----do | 7.95 | 4,567 |
| Apr. 29 | ----do | 6.10 | 1,466 |
| May 26 | ----do | 5.52 | 755 |
| June 29 | ----do | 7.10 | 3,405 |
| July 8 | ----do | 5.90 | 1,155 |
| Sept. 9 | ----do | 5.05 | 345 |
| Nov. 18 | ----do | 5.20 | 443 |
| Dec. 13 | ----do | 5.53 | 762 |
| Dec. 13 | ----do | 5.45 | 698 |
| Dec. 28 | ----do | 5.70 | 865 |

DISCHARGE MEASUREMENTS OF HIWASSEE RIVER AT MURPHY, N. C.—*Continued.*

| Date. | Hydrographer. | Area of Section (Square Feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|
| 1901. | | | | |
| Feb. 24 | R. E. Shuford | --- | 5.70 | 725 |
| Apr. 17 | E. W. Myers | --- | 6.15 | 1,522 |
| May 12 | R. E. Shuford | --- | 6.40 | 2,107 |
| July 12 | ----do | --- | 5.45 | 665 |
| Aug. 16 | ----do | --- | 8.00 | 4,974 |
| Sept. 20 | E. W. Myers | --- | 6.02 | 1,106 |
| Sept. 20 | ----do | --- | 6.02 | 1,324 |
| Sept. 20 | ----do | --- | 6.02 | 1,257 |
| Sept. 20 | ----do | --- | 6.02 | 1,166 |
| Sept. 20 | ----do | --- | 6.02 | 1,246 |
| Sept. 20 | ----do | --- | 6.03 | 1,182 |
| Nov. 8 | R. E. Shuford | --- | 5.25 | 462 |
| Dec. 13 | ----do | --- | 5.32 | 480 |
| 1902. | | | | |
| Aug. 12 | B. S. Drane | 311 | 4.80 | 213 |
| Aug. 23 | ----do | 316 | 4.80 | 186 |
| Sept. 18 | ----do | 298 | 4.80 | 198 |
| Sept. 18 | E. W. Myers | 278 | 4.80 | 216 |
| Oct. 24 | B. S. Drane | 297 | 4.87 | 260 |
| Oct. 24 | ----do | 295 | 4.90 | 271 |
| 1903. | | | | |
| Mar. 6 | M. R. Hall | 580 | 6.60 | 1,747 |
| Mar. 28 | B. S. Drane | 642 | 6.75 | 2,226 |
| Apr. 28 | E. C. Murphy | 480 | 6.04 | 1,302 |
| July 29 | O. P. Hall | 349 | 5.16 | 435 |
| Aug. 17 | M. R. Hall | 319 | 5.19 | 437 |
| Aug. 27 | O. P. Hall | 309 | 5.00 | 315 |
| Oct. 2 | ----do | 278 | 4.88 | 217 |
| Oct. 3 | ----do | 280 | 4.88 | 220 |
| Dec. 3 | ----do | 268 | 4.83 | 233 |

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Feb. 22 | M. R. Hall | 172 | 562 | 3.55 | 6.63 | 1,996 |
| Feb. 24 | ----do | 168 | 441 | 2.58 | 6.00 | 1,138 |
| Mar. 1 | O. P. Hall | 168 | 392 | 1.69 | 5.54 | 661 |
| Mar. 2 | ----do | 168 | 386 | 1.67 | 5.54 | 644 |
| May 12 | ----do | 168 | 403 | 1.87 | 5.66 | 754 |
| June 29 | ----do | 167 | 366 | 1.75 | 5.53 | 639 |
| Aug. 29 | ----do | 164 | 318 | 1.08 | 5.10 | 344 |
| Oct. 6 | ----do | 156 | 259 | .71 | 4.80 | 183 |
| Dec. 15 | M. R. Hall | 162 | 266 | 1.08 | 5.02 | 287 |
| 1905. | | | | | | |
| Apr. 15 | O. P. Hall | 168 | 445 | 2.01 | 5.84 | 896 |
| June 13 | ----do | 167 | 342 | 1.51 | 5.38 | 517 |
| Oct. 13 | ----do | 162 | 332 | 1.27 | 5.16 | 421 |
| 1906. | | | | | | |
| Feb. 9 | O. P. Hall | 169 | 425 | ---- | 5.78 | 902 |
| Apr. 11 | ----do | 172 | 473 | ---- | 6.17 | 1,310 |
| Apr. 11 | M. R. Hall | 172 | 471 | ---- | 6.17 | 1,400 |
| Apr. 16 | ----do | 176 | 559 | ---- | 6.68 | 2,060 |
| June 7 | O. P. Hall | 170 | 426 | ---- | 5.61 | 847 |
| Nov. 7 | ----do | 170 | 414 | ---- | 5.63 | 799 |
| 1907. | | | | | | |
| May 21 | F. A. Murray | 169 | 413 | 1.95 | 5.72 | 804 |
| Aug. 23 | ----do | 168 | 454 | 2.12 | 5.98 | 963 |
| Oct. 12 | Olin P. Hall | 165 | 370 | 1.37 | 5.38 | 507 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.72 | 4.02 | 3.65 | 3.74 | 3.66 | 5.20 | 17 | 4.48 | 3.78 | 3.60 | 3.65 | 4.50 | 4.05 |
| 2 | 3.70 | 4.02 | 3.61 | 3.68 | 3.70 | 4.70 | 18 | 4.54 | 3.74 | 3.60 | 3.56 | 3.95 | 4.00 |
| 3 | 3.75 | 4.11 | 3.62 | 3.65 | 3.72 | 4.52 | 19 | 4.35 | 3.70 | 3.58 | 3.50 | 3.91 | 4.00 |
| 4 | 4.00 | 3.95 | 3.61 | 3.60 | 4.90 | 4.52 | 20 | 4.28 | 3.68 | 3.56 | 3.60 | 3.90 | 4.00 |
| 5 | 3.90 | 3.90 | 3.61 | 3.62 | 4.10 | 4.20 | 21 | 4.32 | 3.70 | 3.56 | 3.60 | 3.90 | 4.00 |
| 6 | 4.62 | 3.90 | 3.90 | 3.55 | 3.90 | 4.20 | 22 | 4.60 | 3.70 | 3.62 | 3.56 | 3.85 | 4.00 |
| 7 | 4.98 | 3.95 | 3.66 | 3.60 | 3.90 | 4.15 | 23 | 5.10 | 3.65 | 3.85 | 3.60 | 3.80 | 3.95 |
| 8 | 6.72 | 3.90 | 3.62 | 3.51 | 3.90 | 4.10 | 24 | 4.61 | 3.90 | 3.60 | 3.90 | 3.80 | 3.95 |
| 9 | 6.95 | 3.86 | 3.60 | 3.60 | 3.82 | 4.30 | 25 | 4.40 | 3.80 | 3.60 | 3.70 | 3.80 | 3.95 |
| 10 | 5.24 | 4.00 | 3.60 | 3.65 | 3.80 | 4.10 | 26 | 4.30 | 3.72 | 3.60 | 3.62 | 3.84 | 3.90 |
| 11 | 4.75 | 3.90 | 3.60 | 3.65 | 3.76 | 4.10 | 27 | 4.30 | 3.72 | 3.60 | 3.62 | 4.00 | 3.90 |
| 12 | 4.82 | 3.81 | 3.67 | 3.65 | 7.53 | 4.10 | 28 | 4.25 | 3.70 | 3.65 | 3.65 | 4.00 | 3.90 |
| 13 | 4.77 | 3.81 | 3.56 | 3.72 | 5.40 | 4.05 | 29 | 4.12 | 3.70 | 3.60 | 3.74 | 5.03 | 3.90 |
| 14 | 4.65 | 3.72 | 3.58 | 3.65 | 4.53 | 4.02 | 30 | 4.01 | 3.65 | 4.20 | 3.80 | 6.10 | 3.90 |
| 15 | 4.42 | 3.75 | 3.80 | 3.65 | 4.30 | 4.10 | 31 | 4.02 | 3.65 | ------- | 3.82 | ------ | 3.90 |
| 16 | 4.55 | 3.92 | 3.62 | 3.60 | 4.12 | 4.05 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.90 | 4.80 | 4.60 | 5.40 | 4.80 | 4.16 | 3.90 | 4.20 | ------- | ------ | 5.00 | 5.02 |
| 2 | 3.90 | 5.50 | 4.50 | 5.50 | 4.70 | 4.15 | 3.90 | 4.32 | ------- | ------ | 5.40 | 5.00 |
| 3 | 3.90 | 4.90 | 4.55 | 5.38 | 4.65 | 4.12 | 3.90 | 4.20 | ------- | ------ | 5.10 | 5.10 |
| 4 | 3.90 | 4.62 | 4.70 | 6.26 | 4.60 | 4.10 | 3.90 | 4.10 | ------- | ------ | 5.02 | 5.45 |
| 5 | 4.12 | 4.60 | 4.60 | 8.20 | 4.55 | 4.30 | 4.15 | 4.35 | ------- | ------ | 5.00 | 6.10 |
| 6 | 4.02 | 5.15 | 9.20 | 6.12 | 4.52 | 4.12 | 4.00 | 4.20 | ------- | ------ | 5.00 | 5.50 |
| 7 | 4.00 | 5.40 | 6.50 | 5.75 | 4.50 | 4.10 | 4.02 | 4.20 | ------- | ------ | 4.95 | 5.30 |
| 8 | 4.00 | 5.12 | 5.65 | 5.50 | 4.50 | 4.10 | 4.10 | ------- | ------- | ------ | 5.00 | 5.20 |
| 9 | 3.92 | 5.10 | 5.40 | 6.10 | 4.50 | 4.22 | 4.10 | ------- | ------- | ------ | 4.98 | 5.12 |
| 10 | 3.92 | 4.85 | 5.62 | 5.35 | 4.45 | 4.10 | 4.25 | ------- | ------- | ------ | 5.00 | 5.10 |
| 11 | 4.00 | 4.85 | 5.50 | 5.30 | 4.52 | 4.02 | 4.15 | ------- | ------- | ------ | 5.00 | 5.10 |
| 12 | 3.90 | 4.82 | 9.90 | 5.15 | 4.40 | 4.05 | 4.00 | ------- | ------- | ------ | 4.95 | 5.00 |
| 13 | 3.92 | 4.82 | 6.85 | 5.05 | 5.00 | 4.05 | 3.98 | ------- | ------- | ------ | 4.95 | 5.02 |
| 14 | 4.40 | 4.12 | 6.70 | 5.05 | 4.80 | 4.00 | 3.90 | ------- | ------- | ------ | 5.00 | 6.20 |
| 15 | 4.60 | 4.70 | 6.12 | 5.50 | 4.60 | 4.00 | 3.85 | ------- | ------- | ------ | 5.00 | 5.55 |
| 16 | 4.15 | 4.60 | 7.65 | 5.05 | 4.50 | 4.10 | 3.90 | ------- | ------- | ------ | 5.00 | 5.30 |
| 17 | 4.55 | ------- | 6.30 | 5.00 | 4.50 | 4.03 | 4.50 | ------- | ------- | ------ | 4.95 | 5.28 |
| 18 | 4.40 | ------- | 6.00 | 4.90 | 4.42 | 4.10 | 4.05 | ------- | ------- | ------ | 4.95 | 5.20 |
| 19 | 4.40 | ------- | 7.05 | 4.80 | 4.40 | 4.20 | 5.72 | ------- | ------- | ------ | 4.95 | 5.40 |
| 20 | 5.10 | ------- | 6.80 | 4.80 | 4.32 | 4.15 | 5.00 | ------- | ------- | 5.00 | 4.95 | 6.00 |
| 21 | 4.70 | 4.80 | 6.10 | 4.70 | 4.36 | 4.05 | 4.50 | ------- | ------- | 4.75 | 4.95 | 7.35 |
| 22 | 4.52 | 4.50 | 5.80 | 4.70 | 4.35 | 4.00 | 4.85 | ------- | ------- | 4.75 | 4.95 | 6.85 |
| 23 | 4.40 | 7.92 | 5.55 | 4.70 | 4.30 | 4.00 | 4.34 | ------- | ------- | 4.70 | 4.90 | 6.15 |
| 24 | 4.40 | 5.50 | 5.40 | 4.70 | 4.26 | 4.00 | 4.20 | ------- | ------- | 4.70 | 4.90 | 5.80 |
| 25 | 4.40 | 5.10 | 5.30 | 4.65 | 4.25 | 4.00 | 10.85 | ------- | ------- | 4.70 | 5.00 | 5.50 |
| 26 | 4.20 | 4.97 | 5.15 | 4.70 | 4.22 | 4.00 | 6.20 | ------- | ------- | 4.65 | 4.98 | 5.85 |
| 27 | 4.30 | 4.70 | 5.10 | 4.63 | 4.20 | 3.90 | 5.20 | ------- | ------- | 4.66 | 5.00 | 5.60 |
| 28 | 4.10 | 4.64 | 5.00 | 4.60 | 4.20 | 3.90 | 4.72 | ------- | ------- | 4.70 | 5.05 | 5.50 |
| 29 | 4.15 | ------- | 4.90 | 4.60 | 4.20 | 4.30 | 4.52 | ------- | ------- | 4.72 | 5.00 | 5.40 |
| 30 | 4.15 | ------- | 5.00 | 4.68 | 4.20 | 4.00 | 4.40 | ------- | ------- | 4.90 | 5.10 | 5.40 |
| 31 | 4.15 | ------- | 4.90 | ------- | 4.20 | ------- | 4.25 | ------- | ------- | 4.87 | ------ | 5.30 |

Daily Gage Height, in Feet, of Hiwassee River at Murphy, N. C., for 1898-1899.

| 1898. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.30 | 5.60 | 5.22 | 7.00 | 5.80 | 5.12 | 4.95 | 5.82 | 5.40 | 5.60 | 5.85 | 6.00 |
| 2 | 5.20 | 5.45 | 5.20 | 6.50 | 5.80 | 5.12 | 4.95 | 5.60 | 12.05 | 5.60 | 5.85 | 5.90 |
| 3 | 5.10 | 5.62 | 5.32 | 6.21 | 5.70 | 5.10 | 4.90 | 5.82 | 13.97 | 5.50 | 5.80 | 5.85 |
| 4 | 5.30 | 5.50 | 5.30 | 6.10 | 5.65 | 5.10 | 4.90 | 9.80 | 10.10 | 14.40 | 5.80 | 5.90 |
| 5 | 5.25 | 5.50 | 5.21 | 8.75 | 5.65 | 5.10 | 5.50 | 9.35 | 9.75 | 11.60 | 5.80 | 6.10 |
| 6 | 5.30 | 5.42 | 5.20 | 7.00 | 5.51 | 5.20 | 5.20 | 6.75 | 7.50 | 8.30 | 6.10 | 6.10 |
| 7 | 5.30 | 5.40 | 5.20 | 6.55 | 5.60 | 5.10 | 5.10 | 6.50 | 7.10 | 7.30 | 5.85 | 6.10 |
| 8 | 5.30 | 5.40 | 5.20 | 6.30 | 5.60 | 5.10 | 5.31 | 7.02 | 6.85 | 7.00 | 5.80 | 6.00 |
| 9 | 5.20 | 5.40 | 5.20 | 6.11 | 5.60 | 5.10 | 5.10 | 6.80 | 6.60 | 6.70 | 5.80 | 5.95 |
| 10 | 5.25 | 5.40 | 5.20 | 6.05 | 5.50 | 5.10 | 5.30 | 8.30 | 6.60 | 6.50 | 5.72 | 5.90 |
| 11 | 5.30 | 5.40 | 5.20 | 6.10 | 5.50 | 5.05 | 5.10 | 10.00 | 6.30 | 6.40 | 5.90 | 5.90 |
| 12 | 6.00 | 5.30 | 5.20 | 6.00 | 5.50 | 5.00 | 5.00 | 7.50 | 6.20 | 6.32 | 5.85 | 5.85 |
| 13 | 5.85 | 5.30 | 5.20 | 5.90 | 5.40 | 5.00 | 4.91 | 7.15 | 6.12 | 6.20 | 5.80 | 5.80 |
| 14 | 5.80 | 5.30 | 5.30 | 5.95 | 5.40 | 5.01 | 5.90 | 6.81 | 6.05 | 6.20 | 5.90 | 5.75 |
| 15 | 5.60 | 5.30 | 5.35 | 5.95 | 5.40 | 5.10 | 6.12 | 6.40 | 6.00 | 6.05 | 5.85 | 5.70 |
| 16 | 5.80 | 5.25 | 5.32 | 5.85 | 5.50 | 5.15 | 5.70 | 6.20 | 5.90 | 6.00 | 5.85 | 5.70 |
| 17 | 5.70 | 5.25 | 5.40 | 5.81 | 5.40 | 5.50 | 5.50 | 6.20 | 6.00 | 6.00 | 5.85 | 5.70 |
| 18 | 5.60 | 5.22 | 5.40 | 5.80 | 5.40 | 5.45 | 5.30 | 6.30 | 5.80 | 9.20 | 6.00 | 5.70 |
| 19 | 5.60 | 5.30 | 5.40 | 5.75 | 5.35 | 5.20 | 5.21 | 6.25 | 5.70 | 6.70 | 6.70 | 5.70 |
| 20 | 5.90 | 5.25 | 5.40 | 5.85 | 5.30 | 5.15 | 5.15 | 6.10 | 5.70 | 6.40 | 6.40 | 6.00 |
| 21 | 6.10 | 5.35 | 5.36 | 5.70 | 5.30 | 5.10 | 5.01 | 6.10 | 5.65 | 6.23 | 6.20 | 5.70 |
| 22 | 5.90 | 5.30 | 5.35 | 5.70 | 5.30 | 5.10 | 5.30 | 5.90 | 5.70 | 6.30 | 6.10 | 5.70 |
| 23 | 6.00 | 5.30 | 5.30 | 5.65 | 5.35 | 5.05 | 5.40 | 5.75 | 6.05 | 6.20 | 6.50 | 6.10 |
| 24 | 5.78 | 5.27 | 5.25 | 6.20 | 5.60 | 5.02 | 5.60 | 5.70 | 5.80 | 6.10 | 6.25 | 6.00 |
| 25 | 7.75 | 5.30 | 5.40 | 6.10 | 5.32 | 5.05 | 6.00 | 5.65 | 5.70 | 6.10 | 6.10 | 5.90 |
| 26 | 7.20 | 5.22 | 5.40 | 5.95 | 5.25 | 5.00 | 5.90 | 5.80 | 5.70 | 6.10 | 6.10 | 5.80 |
| 27 | 6.50 | 5.22 | 5.30 | 6.20 | 5.25 | 5.05 | 5.60 | 5.70 | 5.65 | 6.05 | 6.00 | 5.80 |
| 28 | 6.18 | 5.25 | 5.30 | 6.10 | 5.21 | 5.01 | 6.20 | 5.70 | 5.60 | 6.00 | 6.00 | 5.75 |
| 29 | 6.00 | ------- | 11.10 | 6.00 | 5.20 | 5.00 | 5.80 | 5.60 | 5.60 | 6.00 | 6.20 | 5.70 |
| 30 | 5.82 | ------- | 9.40 | 5.90 | 5.20 | 4.95 | 5.65 | 5.60 | 5.60 | 5.95 | 6.00 | 5.70 |
| 31 | 5.71 | ------- | 7.70 | ------- | 5.10 | ------- | 6.20 | 5.60 | ------- | 5.90 | ------ | 5.90 |
| 1899. | | | | | | | | | | | | |
| 1 | 5.80 | 5.60 | 6.90 | 6.80 | 5.85 | 5.30 | ------- | 5.30 | 5.40 | 4.90 | 4.85 | 5.10 |
| 2 | 5.70 | 5.70 | 6.60 | 6.60 | 5.82 | 5.30 | ------- | 5.20 | 5.25 | 4.80 | 4.90 | 5.35 |
| 3 | 5.70 | 5.70 | 6.70 | 6.50 | 5.80 | 5.30 | ------- | 5.20 | 5.50 | 4.85 | 4.90 | 5.10 |
| 4 | 5.65 | 14.00 | 6.32 | 7.20 | 5.80 | 5.25 | ------- | 5.15 | 5.30 | 4.75 | 4.90 | 5.10 |
| 5 | 5.60 | 9.60 | 7.40 | 6.55 | 6.10 | 5.25 | ------- | 5.12 | 5.20 | 4.80 | 4.90 | 5.10 |
| 6 | 5.70 | 9.45 | 6.75 | 6.50 | 5.80 | 5.25 | ------- | 5.20 | 5.10 | 4.90 | 4.90 | 5.02 |
| 7 | 6.30 | 9.90 | 6.50 | 6.55 | 5.85 | 5.10 | ------- | 5.20 | 5.10 | 4.90 | 4.90 | 5.00 |
| 8 | 6.00 | 7.85 | 6.40 | 6.70 | 5.70 | 5.10 | ------- | 5.20 | 5.15 | 5.70 | 4.90 | 5.10 |
| 9 | 5.90 | 7.20 | 6.40 | 6.60 | 5.70 | 5.20 | 5.20 | 5.12 | 5.05 | 5.15 | 4.90 | 5.05 |
| 10 | 5.80 | 6.75 | 6.30 | 6.50 | 5.70 | 5.15 | 5.10 | 5.15 | 5.00 | 5.00 | 4.90 | 5.10 |
| 11 | 5.80 | 6.60 | 6.20 | 6.40 | 5.62 | 5.10 | 5.10 | 5.15 | 5.20 | 5.02 | 4.90 | 5.10 |
| 12 | 5.80 | 6.55 | 6.10 | 6.30 | 5.62 | 5.82 | 5.05 | 5.10 | 5.10 | 5.00 | 4.85 | 9.10 |
| 13 | 5.70 | 6.30 | 6.10 | 6.20 | 5.60 | 5.80 | 5.00 | 5.10 | 5.00 | 4.90 | 4.85 | 6.30 |
| 14 | 5.70 | 6.40 | 6.75 | 6.20 | 5.55 | 5.50 | 5.00 | 5.05 | 5.00 | 4.80 | 4.90 | 5.82 |
| 15 | 5.75 | 6.40 | 10.80 | 6.10 | 5.60 | 5.35 | 5.00 | 5.20 | 5.00 | 5.00 | 4.90 | 5.70 |
| 16 | 5.75 | 6.30 | 8.75 | 6.10 | 5.50 | 5.25 | 5.00 | 5.32 | 4.90 | 5.00 | 4.90 | 5.50 |
| 17 | 5.75 | 6.25 | 7.50 | 6.05 | 5.50 | 5.30 | 5.10 | 5.20 | 5.00 | 5.00 | 4.90 | 5.40 |
| 18 | 5.70 | 6.25 | 7.10 | 6.00 | 5.50 | 5.20 | 5.30 | 5.10 | 5.00 | 4.95 | 4.90 | 5.40 |
| 19 | 5.70 | 6.00 | 18.40 | 6.00 | 5.60 | 5.20 | 5.20 | 5.00 | 5.00 | 5.10 | 4.85 | 5.30 |
| 20 | 5.70 | 6.10 | 8.70 | 6.00 | 5.50 | 5.15 | 5.10 | 5.00 | 5.10 | 5.00 | 4.85 | 5.50 |
| 21 | 5.70 | 6.10 | 7.60 | 6.00 | 5.45 | 5.10 | 5.30 | 5.00 | 5.00 | 5.00 | 4.90 | 5.40 |
| 22 | 5.60 | 6.10 | 7.20 | 5.90 | 5.40 | 5.10 | 5.30 | 5.00 | 5.00 | 4.90 | 4.90 | 5.35 |
| 23 | 5.60 | 6.00 | 8.15 | 5.90 | 5.40 | 5.10 | 5.30 | 5.00 | 5.00 | 4.90 | 5.40 | 5.30 |
| 24 | 5.52 | 5.92 | 7.00 | 5.90 | 5.42 | 4.85 | 5.20 | 5.00 | 5.00 | 4.90 | 5.12 | 6.30 |
| 25 | 5.65 | 6.10 | 6.80 | 6.70 | 5.40 | 4.95 | 5.20 | 5.10 | 5.00 | 4.90 | 5.10 | 5.70 |
| 26 | 5.60 | 6.00 | 6.60 | 6.10 | 5.40 | 5.05 | 6.80 | 5.05 | 5.00 | 4.90 | 5.75 | 5.60 |
| 27 | 5.60 | 9.10 | 6.52 | 6.00 | 5.35 | 5.00 | 5.75 | 5.25 | 5.02 | 4.90 | 5.40 | 5.50 |
| 28 | 5.60 | 7.30 | 6.50 | 6.00 | 5.35 | 5.00 | 5.90 | 5.45 | 5.00 | 5.00 | 5.30 | 5.55 |
| 29 | 5.50 | ------- | 6.90 | 5.90 | 5.32 | 5.00 | ------- | 5.10 | 5.00 | 5.10 | 5.20 | 5.50 |
| 30 | 5.50 | ------- | 6.70 | 5.90 | 5.32 | 5.00 | ------- | 5.10 | 4.88 | 4.90 | 5.10 | 5.35 |
| 31 | 5.90 | ------- | 7.80 | ------- | 5.30 | ------- | ------- | 5.70 | ------- | 5.00 | ------ | 5.40 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1900-1901.

| 1900. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.50 | 5.12 | 7.00 | 5.90 | 6.10 | 5.40 | 6.80 | 5.80 | 5.35 | 5.00 | 5.20 | 5.40 |
| 2 | 5.20 | 5.30 | 6.50 | 5.90 | 6.00 | 5.40 | 6.60 | 5.40 | 5.20 | 4.90 | 5.25 | 5.45 |
| 3 | 5.51 | 5.35 | 6.25 | 5.90 | 6.00 | 5.60 | 7.00 | 5.40 | 5.15 | 5.00 | 6.20 | 5.40 |
| 4 | 5.30 | 5.40 | 6.10 | 6.70 | 5.90 | 5.80 | 6.40 | 5.40 | 5.10 | 5.10 | 5.60 | 7.20 |
| 5 | 5.30 | 5.60 | 6.00 | 6.10 | 5.90 | 5.50 | 6.20 | 5.30 | 5.20 | 5.10 | 5.40 | 6.40 |
| 6 | 5.20 | 5.40 | 6.00 | 6.05 | 5.80 | 6.10 | 6.00 | 5.30 | 5.15 | 5.05 | 5.35 | 6.00 |
| 7 | 5.20 | 5.40 | 7.00 | 6.00 | 5.70 | 6.00 | 5.90 | 5.30 | 5.10 | 5.00 | 5.35 | 5.80 |
| 8 | 5.20 | 5.40 | 7.50 | 5.90 | 5.70 | 6.10 | 5.80 | 5.20 | 5.05 | 5.30 | 5.30 | 5.75 |
| 9 | 5.20 | 6.72 | 7.40 | 5.85 | 5.70 | 6.10 | 6.20 | 5.20 | 5.05 | 5.10 | 5.25 | 5.60 |
| 10 | 5.20 | 6.02 | 6.90 | 5.80 | 5.70 | 6.30 | 5.70 | 5.20 | 5.00 | 5.05 | 5.25 | 5.60 |
| 11 | 5.30 | 6.10 | 6.60 | 6.10 | 5.70 | 6.10 | 5.70 | 5.20 | 5.00 | 5.00 | 5.20 | 5.50 |
| 12 | 6.30 | 6.10 | 6.40 | 6.30 | 5.65 | 6.10 | 5.80 | 5.20 | 5.00 | 4.90 | 5.25 | 5.50 |
| 13 | 5.80 | 12.60 | 6.30 | 6.10 | 5.60 | 6.60 | 5.80 | 5.20 | 5.00 | 5.30 | 5.20 | 5.45 |
| 14 | 5.60 | 7.70 | 6.12 | 6.00 | 5.60 | 6.10 | 5.70 | 5.20 | 5.05 | 5.10 | 5.25 | 5.45 |
| 15 | 5.60 | 7.15 | 6.05 | 6.00 | 5.60 | 5.80 | 5.60 | 5.20 | 7.00 | 5.00 | 5.20 | 5.40 |
| 16 | 5.50 | 6.50 | 6.30 | 5.90 | 5.50 | 5.80 | 5.60 | 5.10 | 6.45 | 5.00 | 5.15 | 5.40 |
| 17 | 5.40 | 6.20 | 6.00 | 5.80 | 5.40 | 6.20 | 5.60 | 5.30 | 5.70 | 4.90 | 5.20 | 5.40 |
| 18 | 5.45 | 5.90 | 6.00 | 6.20 | 5.50 | 6.00 | 5.60 | 5.20 | 5.45 | 4.80 | 5.15 | 5.30 |
| 19 | 5.90 | 5.90 | 6.85 | 6.70 | 5.70 | 6.30 | 5.50 | 5.10 | 5.35 | 5.00 | 5.20 | 5.30 |
| 20 | 6.60 | 5.80 | 7.40 | 6.40 | 5.50 | 6.10 | 5.50 | 5.10 | 5.35 | 4.90 | 5.15 | 5.80 |
| 21 | 6.20 | 6.00 | 6.90 | 7.10 | 5.40 | 5.90 | 5.50 | 5.10 | 5.25 | 4.90 | 5.20 | 6.70 |
| 22 | 5.90 | 6.40 | 6.60 | 6.80 | 5.40 | 5.80 | 5.60 | 5.10 | 5.00 | 5.00 | 5.30 | 5.90 |
| 23 | 5.80 | 6.15 | 6.40 | 6.70 | 5.40 | 6.30 | 5.70 | 5.30 | 5.40 | 4.90 | 5.20 | 5.80 |
| 24 | 5.65 | 6.00 | 6.35 | 6.50 | 5.60 | 6.60 | 5.60 | 5.90 | 5.20 | 7.10 | 5.15 | 6.00 |
| 25 | 5.60 | 6.00 | 6.40 | 6.55 | 5.50 | 6.50 | 5.40 | 5.30 | 5.20 | 6.00 | 5.30 | 5.80 |
| 26 | 5.60 | 6.00 | 6.40 | 6.55 | 5.60 | 7.00 | 5.50 | 5.40 | 5.20 | 5.70 | 6.70 | 5.70 |
| 27 | 5.50 | 5.90 | 6.30 | 6.30 | 5.50 | 7.20 | 5.70 | 5.20 | 5.15 | 5.60 | 6.00 | 5.65 |
| 28 | 5.40 | 5.85 | 6.30 | 6.20 | 5.50 | 7.10 | 5.90 | 5.15 | 5.15 | 5.40 | 5.70 | 5.60 |
| 29 | 5.40 | ..... | 6.05 | 6.20 | 5.40 | 7.00 | 5.70 | 5.15 | 5.10 | 5.30 | 5.60 | 5.70 |
| 30 | 5.40 | ..... | 6.10 | 6.10 | 5.40 | 6.80 | 5.80 | 5.15 | 5.05 | 5.20 | 5.50 | ..... |
| 31 | 5.50 | ..... | 6.00 | ..... | 5.40 | ..... | 5.60 | 5.15 | ..... | 5.25 | ..... | ..... |
| 1901. | | | | | | | | | | | | |
| 1 | 6.00 | 6.05 | 5.60 | 6.35 | 6.15 | 6.35 | 6.00 | 5.30 | 6.70 | 5.60 | 5.25 | 5.20 |
| 2 | 5.90 | 5.95 | 5.60 | 7.65 | 6.10 | 6.20 | 5.90 | 5.25 | 6.40 | 5.60 | 5.25 | 5.20 |
| 3 | 5.80 | 5.90 | 5.55 | 7.60 | 6.05 | 6.10 | 5.65 | 5.20 | 6.25 | 5.60 | 5.25 | 5.30 |
| 4 | 5.70 | 7.55 | 5.55 | 7.10 | 6.00 | 6.05 | 5.60 | 5.20 | 6.20 | 5.50 | 5.30 | 5.35 |
| 5 | 5.60 | 6.75 | 5.70 | 6.75 | 6.00 | 6.00 | 5.55 | 6.20 | 6.15 | 5.50 | 5.30 | 5.20 |
| 6 | 5.60 | 6.40 | 5.60 | 6.75 | 6.05 | 5.95 | 5.70 | 7.65 | 6.05 | 5.50 | 5.30 | 5.25 |
| 7 | 5.60 | 6.25 | 5.55 | 6.50 | 5.95 | 6.10 | 6.55 | 7.00 | 6.00 | 5.45 | 5.25 | 5.20 |
| 8 | 5.50 | 6.15 | 5.55 | 6.40 | 5.85 | 5.90 | 5.75 | 6.05 | 5.90 | 5.40 | 5.25 | 5.25 |
| 9 | 5.50 | 6.95 | 5.55 | 6.25 | 5.85 | 5.85 | 5.55 | 5.75 | 5.85 | 5.45 | 5.25 | 5.25 |
| 10 | 5.50 | 6.50 | 5.60 | 6.20 | 5.85 | 5.80 | 5.50 | 5.60 | 5.80 | 5.40 | 5.25 | 6.15 |
| 11 | 8.80 | 6.40 | 6.50 | 6.10 | 5.80 | 5.80 | 5.45 | 5.85 | 6.00 | 5.40 | 5.25 | 5.55 |
| 12 | 9.20 | 6.30 | 6.10 | 6.10 | 5.75 | 5.95 | 5.45 | 6.55 | 5.80 | 5.40 | 5.20 | 5.40 |
| 13 | 7.50 | 6.25 | 5.95 | 6.15 | 5.75 | 5.85 | 5.40 | 5.75 | 6.00 | 6.20 | 5.40 | 5.40 |
| 14 | 6.85 | 6.15 | 5.85 | 6.55 | 5.70 | 6.50 | 5.40 | 7.95 | 5.80 | 5.50 | 5.30 | 6.30 |
| 15 | 6.50 | 6.05 | 5.75 | 6.35 | 5.65 | 6.50 | 5.45 | 7.30 | 5.70 | 5.45 | 5.20 | 9.10 |
| 16 | 6.30 | 6.00 | 5.75 | 6.20 | 5.65 | 6.35 | 5.80 | 7.90 | 5.90 | 5.40 | 5.20 | 6.80 |
| 17 | 6.20 | 5.90 | 5.70 | 6.15 | 5.65 | 6.30 | 5.40 | 8.15 | 7.20 | 5.40 | 5.20 | 6.70 |
| 18 | 6.10 | 5.85 | 5.65 | 6.10 | 5.60 | 6.10 | 5.40 | 8.45 | 6.75 | 5.40 | 5.25 | 6.00 |
| 19 | 5.90 | 5.85 | 5.60 | 6.55 | 6.70 | 6.00 | 7.10 | 7.35 | 6.20 | 5.40 | 5.25 | 5.90 |
| 20 | 5.85 | 5.80 | 5.60 | 11.40 | 7.20 | 6.05 | 5.65 | 7.05 | 6.00 | 5.35 | 5.25 | 5.80 |
| 21 | 5.85 | 5.75 | 5.95 | 7.90 | 7.50 | 5.85 | 5.45 | 8.15 | 5.90 | 5.35 | 5.20 | 5.70 |
| 22 | 5.90 | 5.75 | 5.75 | 7.25 | 10.60 | 5.80 | 5.65 | 8.00 | 5.80 | 5.35 | 5.20 | 5.75 |
| 23 | 5.80 | 5.75 | 5.65 | 6.95 | 7.75 | 5.75 | 5.40 | 12.70 | 5.75 | 5.35 | 5.25 | 5.70 |
| 24 | 6.05 | 5.70 | 5.95 | 6.70 | 7.10 | 5.70 | 5.35 | 8.25 | 5.70 | 5.30 | 5.45 | 5.90 |
| 25 | 5.90 | 5.65 | 5.80 | 6.65 | 6.85 | 5.70 | 5.45 | 7.35 | 5.65 | 5.30 | 5.30 | 5.85 |
| 26 | 5.85 | 5.70 | 10.80 | 6.50 | 6.55 | 6.10 | 5.30 | 6.95 | 5.65 | 5.30 | 5.20 | 5.85 |
| 27 | 5.90 | 5.65 | 8.20 | 6.40 | 6.50 | 5.70 | 5.65 | 6.75 | 5.60 | 5.30 | 5.20 | 7.50 |
| 28 | 6.05 | 5.60 | 7.20 | 6.35 | 6.35 | 6.20 | 5.30 | 6.85 | 5.60 | 5.30 | 5.15 | 6.55 |
| 29 | 5.95 | ..... | 6.80 | 6.20 | 6.35 | 6.05 | 5.50 | 7.00 | 5.75 | 5.30 | 5.15 | 13.30 |
| 30 | 6.00 | ..... | 6.60 | 6.15 | 6.20 | 5.75 | 5.35 | 6.80 | 5.60 | 5.30 | 5.20 | 9.10 |
| 31 | 6.20 | ..... | 6.50 | ..... | 6.75 | ..... | 5.50 | 6.70 | ..... | 5.25 | ..... | 7.50 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1902-1903.

| 1902. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.95 | 7.80 | 8.50 | 6.60 | 5.70 | 5.30 | 5.20 | 4.90 | 4.75 | 5.25 | 4.90 | 5.65 |
| 2 | 6.60 | 9.10 | 7.50 | 6.50 | 5.80 | 5.30 | 5.20 | 4.90 | 4.80 | 5.15 | 4.90 | 5.50 |
| 3 | 6.15 | 7.50 | 7.05 | 6.35 | 5.70 | 5.30 | 5.15 | 5.20 | 4.80 | 5.05 | 4.90 | 6.65 |
| 4 | 6.30 | 6.90 | 6.80 | 6.30 | 5.65 | 5.25 | 5.15 | 4.95 | 5.15 | 5.00 | 4.90 | 5.95 |
| 5 | 6.15 | 6.50 | 7.15 | 6.25 | 5.70 | 5.25 | 5.15 | 4.90 | 4.95 | 5.05 | 4.90 | 5.50 |
| 6 | 6.10 | 6.35 | 6.80 | 6.15 | 5.70 | 5.20 | 5.15 | 4.85 | 4.85 | 5.10 | 5.90 | 5.65 |
| 7 | 6.00 | 6.25 | 6.55 | 6.15 | 5.60 | 5.20 | 5.30 | 4.85 | 4.80 | 5.00 | 5.20 | 5.50 |
| 8 | 5.95 | 6.15 | 6.45 | 6.65 | 5.60 | 5.55 | 5.15 | 4.85 | 4.80 | 5.00 | 5.10 | 5.45 |
| 9 | 5.90 | 6.50 | 6.75 | 6.35 | 5.60 | 5.55 | 5.10 | 4.80 | 4.80 | 5.00 | 5.00 | 5.40 |
| 10 | 5.85 | 6.00 | 6.55 | 6.25 | 5.50 | 5.55 | 5.10 | 4.80 | 5.35 | 4.95 | 5.05 | 5.35 |
| 11 | 5.85 | 5.90 | 6.50 | 6.15 | 5.50 | 5.50 | 5.10 | 4.85 | 4.95 | 5.00 | 5.00 | 5.35 |
| 12 | 5.80 | 5.90 | 6.40 | 6.10 | 5.55 | 5.50 | 5.50 | 4.80 | 4.90 | 5.45 | 5.00 | 5.30 |
| 13 | 5.75 | 5.85 | 6.65 | 6.05 | 5.55 | 5.50 | 5.40 | 4.80 | 5.05 | 5.15 | 5.00 | 5.35 |
| 14 | 5.70 | 5.80 | 6.45 | 6.00 | 5.55 | 5.45 | 5.25 | 4.80 | 5.05 | 5.45 | 5.00 | 5.25 |
| 15 | 5.70 | 5.85 | 6.40 | 6.00 | 5.50 | 5.50 | 5.30 | 4.85 | 4.90 | 5.15 | 4.95 | 5.25 |
| 16 | 5.70 | 5.90 | 6.45 | 6.00 | 5.55 | 5.50 | 5.20 | 4.80 | 4.90 | 5.10 | 4.95 | 5.75 |
| 17 | 5.65 | 5.85 | 6.90 | 5.95 | 5.50 | 5.45 | 5.15 | 4.85 | 4.85 | 5.05 | 5.00 | 6.15 |
| 18 | 5.65 | 5.75 | 6.60 | 6.00 | 5.55 | 5.40 | 5.10 | 4.80 | 4.85 | 5.00 | 5.50 | 5.90 |
| 19 | 5.90 | 5.75 | 6.45 | 5.95 | 5.50 | 5.40 | 5.10 | 4.80 | 4.95 | 4.95 | 5.15 | 5.65 |
| 20 | 5.70 | 5.80 | 6.35 | 5.90 | 5.40 | 5.40 | 5.05 | 4.80 | 5.35 | 4.95 | 5.05 | 5.50 |
| 21 | 5.65 | 6.05 | 6.30 | 5.85 | 5.40 | 5.35 | 5.05 | 4.80 | 5.05 | 4.95 | 5.05 | 5.80 |
| 22 | 5.75 | 6.25 | 6.25 | 5.80 | 5.35 | 5.40 | 5.05 | 4.75 | 5.00 | 4.95 | 5.00 | 6.30 |
| 23 | 5.65 | 6.05 | 6.20 | 5.80 | 5.45 | 5.30 | 5.05 | 4.75 | 4.95 | 4.95 | 5.05 | 5.90 |
| 24 | 5.65 | 6.00 | 6.15 | 5.75 | 5.40 | 5.30 | 5.00 | 4.75 | 4.90 | 4.95 | 5.00 | 5.75 |
| 25 | 5.60 | 6.05 | 6.10 | 5.75 | 5.50 | 5.25 | 5.00 | 4.75 | 5.45 | 4.90 | 5.50 | 5.70 |
| 26 | 5.60 | 6.05 | 6.05 | 5.75 | 5.30 | 5.50 | 4.95 | 4.75 | 5.15 | 4.90 | 6.00 | 5.60 |
| 27 | 5.65 | 6.00 | 6.10 | 5.75 | 5.30 | 5.55 | 4.90 | 4.85 | 5.35 | 4.95 | 5.70 | 5.40 |
| 28 | 5.95 | 14.15 | 6.10 | 5.75 | 5.25 | 5.45 | 4.90 | 4.95 | 5.45 | 4.95 | 5.50 | 5.45 |
| 29 | 6.05 | ..... | 10.90 | 5.70 | 5.25 | 5.30 | 4.90 | 4.90 | 5.15 | 4.90 | 5.40 | 5.40 |
| 30 | 6.10 | ..... | 7.50 | 5.90 | 5.30 | 5.25 | 4.90 | 4.85 | 5.05 | 4.90 | 5.40 | 5.75 |
| 31 | 7.20 | ..... | 6.90 | ..... | 5.35 | ..... | 4.90 | 4.90 | ..... | 4.90 | ..... | 5.50 |
| 1903. | | | | | | | | | | | | |
| 1 | 5.05 | 5.40 | 8.55 | 7.10 | 6.00 | 6.20 | 5.40 | 5.25 | 4.95 | 4.85 | 4.95 | 4.90 |
| 2 | 5.05 | 5.40 | 7.35 | 6.85 | 5.95 | 6.25 | 5.50 | 6.50 | 4.95 | 4.85 | 4.90 | 4.90 |
| 3 | 5.65 | 5.50 | 6.95 | 6.70 | 5.90 | 5.90 | 5.45 | 5.70 | 5.00 | 4.85 | 4.90 | 4.90 |
| 4 | 5.85 | 6.60 | 6.75 | 6.95 | 6.30 | 5.75 | 5.40 | 5.30 | 5.00 | 4.90 | 4.95 | 4.90 |
| 5 | 5.80 | 6.90 | 6.55 | 6.55 | 5.85 | 6.40 | 5.35 | 6.15 | 5.00 | 4.85 | 5.40 | 4.90 |
| 6 | 5.70 | 6.25 | 6.60 | 6.45 | 5.85 | 6.75 | 5.45 | 5.40 | 4.95 | 4.85 | 5.05 | 4.90 |
| 7 | 5.60 | 6.25 | 6.45 | 6.40 | 5.80 | 6.35 | 5.65 | 5.30 | 4.90 | 4.85 | 4.95 | 4.85 |
| 8 | 5.60 | 7.60 | 7.95 | 6.70 | 5.80 | 6.50 | 5.45 | 5.20 | 4.90 | 5.90 | 4.95 | 4.85 |
| 9 | 5.50 | 6.90 | 7.75 | 6.80 | 5.75 | 5.90 | 5.40 | 5.15 | 5.05 | 5.05 | 4.90 | 4.85 |
| 10 | 5.50 | 6.45 | 7.35 | 6.55 | 5.75 | 5.85 | 5.65 | 5.10 | 4.95 | 4.90 | 4.90 | 4.90 |
| 11 | 5.55 | 7.20 | 9.95 | 6.45 | 5.70 | 6.30 | 5.50 | 5.20 | 4.90 | 4.85 | 4.90 | 4.90 |
| 12 | 5.95 | 7.35 | 8.20 | 6.30 | 5.70 | 5.90 | 6.15 | 5.10 | 4.90 | 4.85 | 5.15 | 4.90 |
| 13 | 5.70 | 6.75 | 7.50 | 6.50 | 5.75 | 5.75 | 6.10 | 5.00 | 4.90 | 4.85 | 5.00 | 4.95 |
| 14 | 5.70 | 6.45 | 7.10 | 7.65 | 5.70 | 5.65 | 6.10 | 5.00 | 4.90 | 4.85 | 4.95 | 5.05 |
| 15 | 5.60 | 6.25 | 6.85 | 7.25 | 5.70 | 5.65 | 5.70 | 5.10 | 5.15 | 4.85 | 5.00 | 4.95 |
| 16 | 5.55 | 6.20 | 6.70 | 6.90 | 5.65 | 5.60 | 5.55 | 5.15 | 5.45 | 4.85 | 4.95 | 4.90 |
| 17 | 5.60 | 9.15 | 6.55 | 6.70 | 5.60 | 5.55 | 5.75 | 5.20 | 5.10 | 4.95 | 5.00 | 4.85 |
| 18 | 5.90 | 7.30 | 6.45 | 6.55 | 5.60 | 5.50 | 5.50 | 5.20 | 5.05 | 5.05 | 5.45 | 4.85 |
| 19 | 5.40 | 6.75 | 6.35 | 6.45 | 5.55 | 5.50 | 5.45 | 5.10 | 4.95 | 4.90 | 5.00 | 4.85 |
| 20 | 5.35 | 6.50 | 6.25 | 6.40 | 5.55 | 5.50 | 5.45 | 5.20 | 4.95 | 4.90 | 5.00 | 5.05 |
| 21 | 5.40 | 6.35 | 6.90 | 6.45 | 6.10 | 5.65 | 5.35 | 5.10 | 4.95 | 4.90 | 5.00 | 5.25 |
| 22 | 5.35 | 6.20 | 7.10 | 6.25 | 5.55 | 5.45 | 5.35 | 5.10 | 4.95 | 4.85 | 4.95 | 5.00 |
| 23 | 5.35 | 6.05 | 11.80 | 6.20 | 5.50 | 5.50 | 5.35 | 5.05 | 4.90 | 4.85 | 4.95 | 5.00 |
| 24 | 5.35 | 6.00 | 8.75 | 6.15 | 5.50 | 5.45 | 5.30 | 5.05 | 4.90 | 4.90 | 4.95 | 4.95 |
| 25 | 5.40 | 5.95 | 7.65 | 6.10 | 5.45 | 5.40 | 5.25 | 5.05 | 4.90 | 4.85 | 4.95 | 4.95 |
| 26 | 5.35 | 5.85 | 7.15 | 6.25 | 5.45 | 5.45 | 5.25 | 5.00 | 4.85 | 4.85 | 4.95 | 5.00 |
| 27 | 5.50 | 5.80 | 6.90 | 6.10 | 5.45 | 5.75 | 5.25 | 5.00 | 4.90 | 4.85 | 4.95 | 4.95 |
| 28 | 5.35 | 12.00 | 6.75 | 6.05 | 5.45 | 5.85 | 5.25 | 5.00 | 4.90 | 4.85 | 4.90 | 5.05 |
| 29 | 5.55 | ..... | 6.65 | 6.00 | 5.95 | 5.55 | 5.30 | 4.95 | 4.90 | 4.85 | 4.90 | 5.00 |
| 30 | 5.45 | ..... | 7.85 | 5.95 | 5.60 | 5.45 | 5.35 | 4.95 | 4.85 | 4.90 | 4.90 | 4.95 |
| 31 | 5.40 | ..... | 7.55 | ..... | 5.80 | ..... | 5.40 | 4.95 | ..... | 4.95 | ..... | 4.95 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1904-1905.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.90 | 5.15 | 5.50 | 5.75 | 5.45 | 5.50 | 5.25 | 5.50 | 5.20 | 4.80 | 4.75 | 5.15 |
| 2 | 4.90 | 5.10 | 5.50 | 5.70 | 5.40 | 5.35 | 5.10 | 5.20 | 5.10 | 4.80 | 4.75 | 5.00 |
| 3 | 5.05 | 5.25 | 5.55 | 5.60 | 5.45 | 5.30 | 5.10 | 5.05 | 5.05 | 4.80 | 4.80 | 5.55 |
| 4 | 4.95 | 5.10 | 5.55 | 5.55 | 5.45 | 5.25 | 5.05 | 5.05 | 5.30 | 4.80 | 5.00 | 5.15 |
| 5 | 4.90 | 5.10 | 5.45 | 5.55 | 5.50 | 5.20 | 5.45 | 5.05 | 5.55 | 4.80 | 4.95 | 5.15 |
| 6 | 4.85 | 5.10 | 5.40 | 5.50 | 5.45 | 5.15 | 5.10 | 5.65 | 5.15 | 4.80 | 4.90 | 5.95 |
| 7 | 5.00 | 5.15 | 7.80 | 5.95 | 5.40 | 6.85 | 5.10 | 5.15 | 5.10 | 4.80 | 4.80 | 5.40 |
| 8 | 4.85 | 6.00 | 6.60 | 6.50 | 5.55 | 5.65 | 5.05 | 5.85 | 5.05 | 4.80 | 4.80 | 5.15 |
| 9 | 4.90 | 5.50 | 6.15 | 5.95 | 5.55 | 5.35 | 6.15 | 5.45 | 5.00 | 4.75 | 4.80 | 5.10 |
| 10 | 4.90 | 5.45 | 5.90 | 6.05 | 6.05 | 5.25 | 5.25 | 5.25 | 5.00 | 4.75 | 4.80 | 5.15 |
| 11 | 4.95 | 5.40 | 6.00 | 5.95 | 5.80 | 5.25 | 5.10 | 5.65 | 5.00 | 4.75 | 4.80 | 5.15 |
| 12 | 5.05 | 5.35 | 5.75 | 5.80 | 5.70 | 5.35 | 5.10 | 5.45 | 4.95 | 4.75 | 4.80 | 5.00 |
| 13 | 5.05 | 5.25 | 5.70 | 5.70 | 5.60 | 5.20 | 5.25 | 5.50 | 4.95 | 4.75 | 5.00 | 5.05 |
| 14 | 5.10 | 5.20 | 6.25 | 5.65 | 5.55 | 5.15 | 5.10 | 5.25 | 4.95 | 4.75 | 5.00 | 5.05 |
| 15 | 5.00 | 5.60 | 6.00 | 5.60 | 5.55 | 5.15 | 5.00 | 7.25 | 4.95 | 4.75 | 5.00 | 5.00 |
| 16 | 5.00 | 5.40 | 5.75 | 5.65 | 5.45 | 5.10 | 5.00 | 5.45 | 4.90 | 4.75 | 4.90 | 5.00 |
| 17 | 5.70 | 5.30 | 5.70 | 5.55 | 5.45 | 5.10 | 5.35 | 5.25 | 4.90 | 4.75 | 4.80 | 5.05 |
| 18 | 5.35 | 5.25 | 5.65 | 5.55 | 5.45 | 5.10 | 5.35 | 5.15 | 4.90 | 4.75 | 4.80 | 5.05 |
| 19 | 5.20 | 5.25 | 5.60 | 5.50 | 5.40 | 5.10 | 5.00 | 5.10 | 4.85 | 4.75 | 4.85 | 5.05 |
| 20 | 5.15 | 6.05 | 5.50 | 5.45 | 5.35 | 5.65 | 4.95 | 5.45 | 4.85 | 4.75 | 4.85 | 5.00 |
| 21 | 5.10 | 5.70 | 5.50 | 5.60 | 5.35 | 5.30 | 4.95 | 5.20 | 4.95 | 4.75 | 4.80 | 4.95 |
| 22 | 5.20 | 6.55 | 6.50 | 5.45 | 5.30 | 5.20 | 5.20 | 5.10 | 4.90 | 4.75 | 4.90 | 4.95 |
| 23 | 6.30 | 6.40 | 7.40 | 5.40 | 5.30 | 5.15 | 5.05 | 5.10 | 4.90 | 4.70 | 4.90 | 4.95 |
| 24 | 5.70 | 6.00 | 7.35 | 5.40 | 5.30 | 5.10 | 5.05 | 5.50 | 4.85 | 4.75 | 4.95 | 5.00 |
| 25 | 5.45 | 5.75 | 6.50 | 5.40 | 5.25 | 5.05 | 5.15 | 5.35 | 4.85 | 4.75 | 4.85 | 5.25 |
| 26 | 5.35 | 5.60 | 6.35 | 5.40 | 5.25 | 5.25 | 5.00 | 5.10 | 4.85 | 4.75 | 4.85 | 5.15 |
| 27 | 5.25 | 5.60 | 6.35 | 5.75 | 5.25 | 5.60 | 4.95 | 5.60 | 4.85 | 4.75 | 4.85 | 5.10 |
| 28 | 5.20 | 5.50 | 6.10 | 5.60 | 5.20 | 5.10 | 4.95 | 5.30 | 4.85 | 4.80 | 4.80 | 6.45 |
| 29 | 5.20 | 5.45 | 6.00 | 5.55 | 5.20 | 5.85 | 5.05 | 5.15 | 4.85 | 4.80 | 4.80 | 5.65 |
| 30 | 5.05 | ..... | 5.90 | 5.50 | 5.20 | 5.30 | 5.20 | 5.10 | 4.85 | 4.80 | 5.25 | 5.40 |
| 31 | 5.20 | ..... | 5.80 | ..... | 6.10 | ..... | 4.95 | 5.10 | ..... | 4.75 | ..... | 5.30 |
| 1905. | | | | | | | | | | | | |
| 1 | 5.25 | 5.30 | 5.80 | 5.55 | 6.30 | 5.70 | 5.85 | 5.20 | 5.15 | 5.00 | 5.00 | 5.20 |
| 2 | 5.20 | 5.25 | 5.80 | 5.55 | 6.05 | 5.65 | 6.00 | 5.20 | 5.25 | 4.95 | 5.00 | 5.15 |
| 3 | 5.45 | 5.20 | 5.70 | 5.50 | 5.90 | 5.55 | 5.45 | 5.15 | 5.30 | 5.00 | 5.00 | 10.00 |
| 4 | 5.40 | 5.20 | 5.60 | 5.50 | 5.90 | 5.55 | 5.35 | 5.15 | 5.20 | 5.50 | 5.00 | 6.50 |
| 5 | 5.35 | 5.20 | 5.60 | 5.65 | 5.80 | 5.50 | 5.65 | 5.20 | 5.15 | 5.10 | 5.00 | 5.90 |
| 6 | 5.35 | 5.95 | 5.60 | 5.65 | 6.10 | 5.50 | 5.40 | 5.15 | 5.10 | 5.00 | 5.00 | 5.65 |
| 7 | 5.80 | 5.75 | 5.60 | 5.70 | 6.20 | 5.50 | 5.45 | 5.15 | 5.10 | 5.00 | 5.10 | 5.55 |
| 8 | 5.50 | 5.70 | 5.60 | 5.60 | 6.70 | 5.45 | 5.35 | 5.35 | 5.10 | 5.00 | 5.00 | 5.55 |
| 9 | 5.45 | 8.75 | 5.60 | 5.70 | 6.05 | 5.40 | 5.35 | 5.35 | 5.10 | 4.95 | 5.00 | 8.70 |
| 10 | 5.40 | 6.95 | 6.10 | 5.65 | 5.90 | 5.40 | 6.35 | 5.25 | 5.05 | 5.00 | 5.00 | 7.00 |
| 11 | 5.40 | 6.30 | 6.00 | 5.60 | 5.80 | 5.35 | 6.55 | 6.30 | 5.15 | 7.55 | 5.00 | 6.35 |
| 12 | 5.50 | 6.10 | 5.80 | 5.85 | 5.75 | 5.40 | 10.30 | 5.80 | 5.15 | 5.45 | 5.00 | 6.05 |
| 13 | 6.60 | 7.00 | 5.80 | 5.85 | 5.90 | 5.35 | 6.85 | 5.75 | 5.10 | 5.20 | 5.00 | 5.85 |
| 14 | 6.55 | 6.30 | 5.70 | 5.75 | 5.70 | 5.40 | 6.15 | 6.30 | 5.10 | 5.10 | 5.00 | 5.75 |
| 15 | 6.60 | 6.30 | 5.60 | 5.70 | 5.65 | 5.30 | 5.85 | 5.90 | 5.05 | 5.10 | 5.00 | 5.85 |
| 16 | 5.80 | 6.00 | 5.60 | 5.80 | 7.20 | 5.40 | 5.80 | 5.75 | 5.05 | 5.20 | 5.00 | 5.80 |
| 17 | 5.65 | 5.90 | 5.60 | 5.70 | 6.45 | 5.50 | 5.65 | 5.60 | 5.05 | 5.10 | 5.00 | 5.70 |
| 18 | 5.60 | 5.80 | 5.60 | 5.65 | 6.10 | 5.40 | 5.55 | 5.50 | 5.00 | 5.05 | 5.00 | 5.65 |
| 19 | 5.50 | 5.70 | 5.55 | 5.60 | 5.95 | 5.60 | 5.60 | 5.45 | 5.00 | 5.05 | 5.00 | 5.60 |
| 20 | 5.60 | 6.20 | 5.65 | 5.55 | 5.85 | 5.50 | 5.50 | 5.40 | 5.00 | 5.05 | 5.35 | 5.65 |
| 21 | 5.45 | 8.20 | 7.00 | 5.55 | 5.80 | 5.50 | 5.40 | 5.35 | 5.00 | 5.05 | 5.15 | 6.60 |
| 22 | 5.40 | 7.20 | 6.25 | 5.65 | 5.85 | 5.80 | 5.50 | 5.30 | 5.00 | 5.00 | 5.10 | 6.20 |
| 23 | 5.35 | 6.60 | 6.05 | 5.50 | 6.45 | 6.75 | 5.40 | 5.25 | 5.00 | 5.00 | 5.05 | 6.15 |
| 24 | 5.35 | 6.40 | 5.90 | 5.50 | 6.95 | 5.55 | 5.35 | 6.50 | 4.95 | 5.00 | 5.00 | 6.40 |
| 25 | 5.30 | 6.20 | 5.85 | 5.45 | 6.35 | 5.55 | 5.40 | 5.50 | 4.95 | 5.00 | 5.15 | 6.10 |
| 26 | 5.25 | 6.10 | 5.75 | 5.50 | 6.20 | 5.35 | 5.30 | 5.60 | 4.95 | 5.30 | 5.20 | 5.95 |
| 27 | 5.25 | 6.00 | 5.70 | 5.90 | 6.10 | 5.35 | 5.30 | 5.35 | 4.95 | 5.15 | 5.10 | 5.80 |
| 28 | 5.20 | 5.90 | 5.65 | 5.80 | 5.95 | 5.45 | 5.35 | 5.30 | 4.95 | 5.10 | 5.10 | 5.75 |
| 29 | 5.15 | ..... | 5.65 | 5.70 | 5.85 | 5.40 | 5.45 | 5.25 | 4.95 | 5.05 | 5.10 | 5.90 |
| 30 | 5.30 | ..... | 5.65 | 6.95 | 5.80 | 5.55 | 5.30 | 5.20 | 4.95 | 5.05 | 5.20 | 5.70 |
| 31 | 5.20 | ..... | 5.60 | ..... | 5.95 | ..... | 5.25 | 5.20 | ..... | 5.00 | ..... | 5.65 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1906-1907.

| 1906. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.60 | 6.10 | 5.50 | 6.70 | 5.75 | 5.40 | 5.40 | 6.40 | 6.65 | 9.00 | 5.70 | 6.00 |
| 2 | 5.60 | 6.05 | 5.50 | 6.45 | 5.75 | 6.70 | 5.40 | 6.40 | 6.30 | 7.60 | 5.70 | 6.00 |
| 3 | 5.85 | 5.95 | 5.65 | 6.25 | 5.75 | 5.65 | 5.40 | 6.20 | 6.15 | 7.80 | 5.70 | 6.00 |
| 4 | 8.20 | 5.90 | 6.15 | 6.15 | 5.85 | 5.80 | 5.65 | 6.30 | 6.10 | 7.80 | 5.65 | 5.95 |
| 5 | 6.90 | 5.90 | 5.90 | 6.10 | 5.75 | 5.85 | 5.40 | 6.10 | 6.10 | 7.20 | 5.65 | 5.90 |
| 6 | 6.45 | 5.85 | 5.75 | 6.05 | 5.70 | 5.80 | 5.40 | 6.00 | 5.95 | 7.40 | 5.65 | 5.90 |
| 7 | 6.25 | 5.85 | 5.70 | 6.00 | 6.15 | 5.60 | 5.50 | 6.25 | 5.90 | 7.20 | 5.65 | 6.10 |
| 8 | 6.10 | 5.80 | 5.90 | 5.95 | 5.85 | 5.50 | 5.35 | 5.90 | 6.40 | 6.85 | 5.60 | 5.95 |
| 9 | 6.05 | 5.80 | 5.80 | 5.95 | 5.70 | 5.50 | 5.75 | 5.80 | 5.85 | 6.60 | 5.60 | 5.90 |
| 10 | 6.20 | 5.75 | 5.75 | 6.55 | 5.70 | 5.40 | 5.40 | 5.70 | 5.85 | 6.50 | 5.60 | 5.90 |
| 11 | 5.90 | 5.70 | 5.70 | 6.25 | 5.65 | 5.40 | 5.40 | 5.65 | 5.75 | 6.35 | 5.60 | 6.70 |
| 12 | 6.30 | 5.70 | 5.65 | 6.10 | 5.65 | 5.55 | 5.45 | 5.60 | 6.70 | 6.25 | 5.75 | 6.30 |
| 13 | 6.05 | 5.70 | 5.65 | 6.05 | 5.65 | 5.75 | 5.40 | 5.60 | 5.90 | 6.15 | 5.60 | 6.15 |
| 14 | 6.05 | 5.65 | 5.65 | 6.00 | 5.60 | 6.20 | 5.35 | 6.30 | 5.70 | 6.10 | 5.60 | 6.10 |
| 15 | 5.95 | 5.65 | 7.60 | 7.40 | 5.55 | 6.15 | 6.90 | 7.40 | 5.70 | 6.05 | 5.55 | 6.05 |
| 16 | 5.95 | 5.65 | 6.95 | 6.75 | 5.50 | 6.55 | 6.45 | 6.25 | 5.65 | 6.00 | 5.60 | 5.95 |
| 17 | 5.85 | 5.60 | 6.40 | 6.45 | 5.50 | 6.10 | 8.20 | 5.90 | 5.60 | 6.00 | 5.65 | 6.10 |
| 18 | 5.95 | 5.60 | 6.20 | 6.25 | 5.50 | 5.85 | 6.45 | 5.95 | 5.05 | 5.95 | 6.60 | 7.15 |
| 19 | 5.95 | 5.55 | 6.20 | 6.15 | 5.45 | 5.75 | 5.95 | 6.00 | 7.00 | 6.50 | 15.80 | 6.60 |
| 20 | 5.85 | 5.55 | 7.20 | 6.05 | 5.45 | 5.70 | 6.40 | 6.25 | 6.35 | 6.20 | 8.20 | 6.65 |
| 21 | 5.85 | 5.65 | 6.65 | 6.00 | 5.40 | 5.55 | 6.45 | 6.10 | 6.25 | 6.10 | 7.20 | 6.50 |
| 22 | 5.95 | 5.70 | 6.40 | 5.95 | 5.45 | 5.10 | 6.30 | 6.20 | 6.30 | 6.05 | 6.95 | 6.35 |
| 23 | 9.50 | 5.60 | 6.25 | 5.90 | 5.40 | 5.45 | 6.20 | 5.95 | 6.25 | 6.00 | 6.60 | 6.20 |
| 24 | 7.50 | 5.60 | 6.10 | 5.85 | 5.35 | 6.20 | 6.05 | 6.10 | 6.30 | 5.95 | 6.45 | 6.10 |
| 25 | 6.60 | 5.60 | 6.10 | 5.80 | 5.35 | 5.95 | 5.85 | 6.00 | 6.15 | 5.90 | 6.30 | 6.10 |
| 26 | 6.70 | 5.55 | 6.10 | 5.80 | 5.45 | 6.00 | 6.05 | 5.80 | 6.10 | 5.85 | 6.25 | 6.00 |
| 27 | 6.65 | 5.55 | 6.10 | 5.80 | 6.25 | 5.65 | 5.85 | 6.05 | 6.05 | 5.80 | 6.20 | 6.00 |
| 28 | 6.25 | 5.50 | 6.05 | 6.85 | 5.65 | 5.55 | 5.75 | 5.80 | 5.95 | 5.75 | 6.15 | 6.75 |
| 29 | 6.35 | ..... | 6.05 | 5.90 | 5.55 | 5.60 | 5.70 | 6.40 | 7.10 | 5.75 | 6.10 | 7.60 |
| 30 | 6.25 | ..... | 6.50 | 5.85 | 5.45 | 5.50 | 6.30 | 8.70 | 9.60 | 5.75 | 6.05 | 6.90 |
| 31 | 6.20 | ..... | 7.20 | ..... | 5.40 | ..... | 5.85 | 7.40 | ..... | 5.75 | ..... | 7.80 |
| 1907. | | | | | | | | | | | | |
| 1 | 6.90 | 6.35 | 6.25 | 6.05 | 5.95 | 6.75 | 5.65 | 5.60 | 5.35 | 5.85 | 5.30 | 5.65 |
| 2 | 6.75 | 7.30 | 8.30 | 5.75 | 5.90 | 6.60 | 5.65 | 5.55 | 5.30 | 5.70 | 5.35 | 5.60 |
| 3 | 6.60 | 6.60 | 7.10 | 5.70 | 5.85 | 6.30 | 5.60 | 5.45 | 5.35 | 5.60 | 5.70 | 5.55 |
| 4 | 6.45 | 6.40 | 6.60 | 5.70 | 6.30 | 6.10 | 6.05 | 5.45 | 5.45 | 5.55 | 5.45 | 5.45 |
| 5 | 6.35 | 7.60 | 6.40 | 5.65 | 5.85 | 6.00 | 5.60 | 5.40 | 6.70 | 5.65 | 5.40 | 5.45 |
| 6 | 6.25 | 6.90 | 6.25 | 6.00 | 5.80 | 5.75 | 5.55 | 5.45 | 5.30 | 5.50 | 5.40 | 5.45 |
| 7 | 6.20 | 6.55 | 6.15 | 5.90 | 6.25 | 5.75 | 5.50 | 5.45 | 5.30 | 5.45 | 5.40 | 5.45 |
| 8 | 6.15 | 6.35 | 6.25 | 5.95 | 6.10 | 5.80 | 5.45 | 5.40 | 5.30 | 5.60 | 5.35 | 5.45 |
| 9 | 6.10 | 6.25 | 6.10 | 5.85 | 6.00 | 6.40 | 5.40 | 5.40 | 5.70 | 5.50 | 5.35 | 5.45 |
| 10 | 6.10 | 6.15 | 6.25 | 5.85 | 5.95 | 6.20 | 5.40 | 5.35 | 6.40 | 5.45 | 5.65 | 6.70 |
| 11 | 6.05 | 6.10 | 6.25 | 5.75 | 6.40 | 6.00 | 5.75 | 5.35 | 6.55 | 5.40 | 5.95 | 6.10 |
| 12 | 6.05 | 6.05 | 6.15 | 5.85 | 5.85 | 5.90 | 5.85 | 6.05 | 5.50 | 5.40 | 5.70 | 5.90 |
| 13 | 6.00 | 6.00 | 6.10 | 5.85 | 5.80 | 5.80 | 7.25 | 5.70 | 5.40 | 5.35 | 5.60 | 5.80 |
| 14 | 5.95 | 5.95 | 6.05 | 5.75 | 6.05 | 6.25 | 5.90 | 5.60 | 5.35 | 5.35 | 5.50 | 6.80 |
| 15 | 5.95 | 5.90 | 6.20 | 5.70 | 6.05 | 5.85 | 5.75 | 6.60 | 5.30 | 5.30 | 5.50 | 6.35 |
| 16 | 5.95 | 5.85 | 6.05 | 5.85 | 5.95 | 5.75 | 5.90 | 6.05 | 5.30 | 5.35 | 5.45 | 6.10 |
| 17 | 5.90 | 5.85 | 6.00 | 5.85 | 5.90 | 5.70 | 5.70 | 5.85 | 5.30 | 5.30 | 5.45 | 5.95 |
| 18 | 5.90 | 5.85 | 6.00 | 5.80 | 5.85 | 5.95 | 5.70 | 5.90 | 5.30 | 5.30 | 5.65 | 5.90 |
| 19 | 5.85 | 5.80 | 5.95 | 6.20 | 5.80 | 5.75 | 6.05 | 6.05 | 5.25 | 5.30 | 5.60 | 5.80 |
| 20 | 6.00 | 5.85 | 5.90 | 5.95 | 5.75 | 5.70 | 5.80 | 5.75 | 5.25 | 5.30 | 5.60 | 5.70 |
| 21 | 5.90 | 5.80 | 5.85 | 5.85 | 5.75 | 5.65 | 5.60 | 6.35 | 5.25 | 5.30 | 5.85 | 5.75 |
| 22 | 5.85 | 5.75 | 5.85 | 5.80 | 5.75 | 5.70 | 5.55 | 6.50 | 5.30 | 5.25 | 5.90 | 5.65 |
| 23 | 5.85 | 5.75 | 5.80 | 7.20 | 5.65 | 6.05 | 5.50 | 6.10 | 11.40 | 5.30 | 6.60 | 7.00 |
| 24 | 5.85 | 5.75 | 5.80 | 6.65 | 5.65 | 6.00 | 5.45 | 5.90 | 6.85 | 5.30 | 7.40 | 6.50 |
| 25 | 5.80 | 6.15 | 5.75 | 6.30 | 5.75 | 6.45 | 5.40 | 5.80 | 5.95 | 5.30 | 6.50 | 6.35 |
| 26 | 5.85 | 5.90 | 5.80 | 6.15 | 5.95 | 5.80 | 5.45 | 5.60 | 5.70 | 5.25 | 6.15 | 6.05 |
| 27 | 5.80 | 6.45 | 5.75 | 6.45 | 6.05 | 5.75 | 5.50 | 5.50 | 5.60 | 5.30 | 5.90 | 5.95 |
| 28 | 5.80 | 6.15 | 5.70 | 6.05 | 5.80 | 5.70 | 5.60 | 5.45 | 5.65 | 5.70 | 5.85 | 5.95 |
| 29 | 5.75 | ..... | 5.70 | 6.00 | 5.70 | 6.05 | 5.40 | 5.40 | 6.80 | 5.35 | 5.75 | 5.90 |
| 30 | 5.75 | ..... | 5.70 | 6.00 | 5.65 | 5.75 | 8.70 | 5.40 | 6.10 | 5.30 | 5.70 | 6.95 |
| 31 | 5.75 | ..... | 5.70 | ..... | 6.05 | ..... | 5.85 | 5.35 | ..... | 5.30 | ..... | 7.00 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER AT MURPHY, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.55 | 7.30 | 6.20 | 6.40 | 6.45 | 5.80 | 5.25 | 5.20 | 5.25 | 5.00 |
| 2 | 6.35 | 6.55 | 6.10 | 6.30 | 6.30 | 5.70 | 5.80 | 5.15 | 5.20 | 5.00 |
| 3 | 6.15 | 6.35 | 6.40 | 6.20 | 6.25 | 5.65 | 5.45 | 5.10 | 5.20 | 5.00 |
| 4 | 6.05 | 6.30 | 6.30 | 6.10 | 6.15 | 5.85 | 5.50 | 5.20 | 5.15 | 4.95 |
| 5 | 6.90 | 6.25 | 6.20 | 6.20 | 6.10 | 5.75 | 6.45 | 5.30 | 5.20 | 5.00 |
| 6 | 8.00 | 6.55 | 6.20 | 6.40 | 6.15 | 6.00 | 5.80 | 5.60 | 6.20 | 5.00 |
| 7 | 6.70 | 6.30 | 6.10 | 6.20 | 7.70 | 5.70 | 5.90 | 5.50 | 5.50 | 4.95 |
| 8 | 6.45 | 6.20 | 6.10 | 6.10 | 6.60 | 5.65 | 6.10 | 5.45 | 5.35 | 5.00 |
| 9 | 6.25 | 6.20 | 6.50 | 6.00 | 6.40 | 5.60 | 5.80 | 6.00 | 5.30 | 5.20 |
| 10 | 6.75 | 6.25 | 6.10 | 6.10 | 6.25 | 5.60 | 6.25 | 5.40 | 5.25 | 6.35 |
| 11 | 6.70 | 6.90 | 6.10 | 6.00 | 6.15 | 5.85 | 6.20 | 5.25 | 5.20 | 5.35 |
| 12 | 9.20 | 6.95 | 7.20 | 6.90 | 6.10 | 5.60 | 5.75 | 5.20 | 5.20 | 5.20 |
| 13 | 7.00 | 6.95 | 6.60 | 6.00 | 6.00 | 5.50 | 5.60 | 5.15 | 5.15 | 5.00 |
| 14 | 6.75 | 6.95 | 6.40 | 5.90 | 5.95 | 6.25 | 5.55 | 5.20 | 5.15 | 5.30 |
| 15 | 6.65 | 10.60 | 6.30 | 6.10 | 5.90 | 5.85 | 5.50 | 5.10 | 5.10 | 5.35 |
| 16 | 6.60 | 8.10 | 6.20 | 6.70 | 5.95 | 5.60 | 5.70 | 5.15 | 5.10 | 5.30 |
| 17 | 6.65 | 6.85 | 6.10 | 6.60 | 5.90 | 5.55 | 5.40 | 5.10 | 5.10 | 5.40 |
| 18 | 6.55 | 6.30 | 6.10 | 6.30 | 5.85 | 5.50 | 5.35 | 5.15 | 5.10 | 5.40 |
| 19 | 6.45 | 6.85 | 6.00 | 6.70 | 6.35 | 5.55 | 5.75 | 5.15 | 5.05 | 5.40 |
| 20 | 6.30 | 6.60 | 7.00 | 6.50 | 6.10 | 5.50 | 5.40 | 5.50 | 5.10 | 5.40 |
| 21 | 6.30 | 6.50 | 7.40 | 6.30 | 5.90 | 5.50 | 5.35 | 5.20 | 5.10 | 5.45 |
| 22 | 6.25 | 6.40 | 6.80 | 6.20 | 5.85 | 5.60 | 5.30 | 6.30 | 5.05 | 5.45 |
| 23 | 6.75 | 6.35 | 7.40 | 6.05 | 5.80 | 5.45 | 5.25 | 5.70 | 5.10 | 6.35 |
| 24 | 6.05 | 6.30 | 9.90 | 6.05 | 6.25 | 5.40 | 5.30 | 6.00 | 5.05 | 6.10 |
| 25 | 6.05 | 6.20 | 8.00 | 8.10 | 6.00 | 5.45 | 5.25 | 6.85 | 5.00 | 5.90 |
| 26 | 6.10 | 6.50 | 7.30 | 7.60 | 6.20 | 5.40 | 5.20 | 5.90 | 5.00 | 5.85 |
| 27 | 6.70 | 6.30 | 7.00 | 7.10 | 6.10 | 5.35 | 5.25 | 5.25 | 5.00 | 5.75 |
| 28 | 6.50 | 6.20 | 6.80 | 6.70 | 5.90 | 5.30 | 5.20 | 5.50 | 5.00 | 5.90 |
| 29 | 6.10 | 6.10 | 6.70 | 6.50 | 5.85 | 5.35 | 5.45 | 5.40 | 5.20 | 5.60 |
| 30 | 6.00 | ..... | 6.50 | 6.40 | 6.20 | 5.30 | 5.30 | 5.30 | 5.15 | 6.30 |
| 31 | 6.00 | ..... | 6.40 | ..... | 6.90 | ..... | 5.20 | 5.30 | ..... | 6.10 |

NOTE.—About October 14, a fish trap was put in below the gage, which when finished raised water about half a foot.

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., OCTOBER 20, 1897, TO DECEMBER 31, 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 4.7 | 220 | 5.8 | 940 | 6.9 | 2,820 | 8.0 | 4,800 |
| 4.8 | 260 | 5.9 | 1,070 | 7.0 | 3,000 | 8.5 | 5,700 |
| 4.9 | 300 | 6.0 | 1,200 | 7.1 | 3,180 | 9.0 | 6,600 |
| 5.0 | 340 | 6.1 | 1,380 | 7.2 | 3,360 | 9.5 | 7,500 |
| 5.1 | 390 | 6.2 | 1,560 | 7.3 | 3,540 | 10.0 | 8,400 |
| 5.2 | 450 | 6.3 | 1,740 | 7.4 | 3,720 | 10.5 | 9,300 |
| 5.3 | 520 | 6.4 | 1,920 | 7.5 | 3,900 | 11.0 | 10,200 |
| 5.4 | 590 | 6.5 | 2,100 | 7.6 | 4,080 | 12.0 | 12,000 |
| 5.5 | 670 | 6.6 | 2,280 | 7.7 | 4,260 | | |
| 5.6 | 750 | 6.7 | 2,460 | 7.8 | 4,440 | | |
| 5.7 | 845 | 6.8 | 2,640 | 7.9 | 4,620 | | |

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., FOR 1899.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 4.70 | 252 | 5.70 | 884 | 7.40 | 3,660 | 13.00 | 13,180 |
| 4.80 | 280 | 5.80 | 1,016 | 7.60 | 4,000 | 14.00 | 14,880 |
| 4.90 | 310 | 5.90 | 1,148 | 7.80 | 4,340 | 15.00 | 16,580 |
| 5.00 | 340 | 6.00 | 1,280 | 8.00 | 4,680 | 16.00 | 18,280 |
| 5.10 | 396 | 6.20 | 1,620 | 8.50 | 5,530 | 17.00 | 19,980 |
| 5.20 | 452 | 6.40 | 1,960 | 9.00 | 6,380 | 18.00 | 21,680 |
| 5.30 | 508 | 6.60 | 2,300 | 9.50 | 7,230 | 19.00 | 23,380 |
| 5.40 | 564 | 6.80 | 2,640 | 10.00 | 8,080 | | |
| 5.50 | 620 | 7.00 | 2,980 | 11.00 | 9,780 | | |
| 5.60 | 752 | 7.20 | 2,320 | 12.00 | 11,480 | | |

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., FOR 1900.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.80 | 310 | 5.60 | 861 | 6.40 | 2,025 | 7.40 | 3,775 |
| 4.90 | 362 | 5.70 | 977 | 6.50 | 2,200 | 7.60 | 4,125 |
| 5.00 | 415 | 5.80 | 1,093 | 6.60 | 2,375 | 7.80 | 4,475 |
| 5.10 | 481 | 5.90 | 1,209 | 6.70 | 2,550 | 8.00 | 4,825 |
| 5.20 | 547 | 6.00 | 1,325 | 6.80 | 2,725 | 8.50 | 5,700 |
| 5.30 | 613 | 6.10 | 1,500 | 6.90 | 2,900 | | |
| 5.40 | 679 | 6.20 | 1,675 | 7.00 | 3,075 | | |
| 5.50 | 745 | 6.30 | 1,850 | 7.20 | 3,425 | | |

*Above gage height 8.5 feet use the rating table for 1901-1903.

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., FOR 1901-1903.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.80 | 205 | 5.80 | 940 | 6.80 | 2,640 | 7.80 | 4,440 |
| 4.90 | 265 | 5.90 | 1,070 | 6.90 | 2,820 | 7.90 | 4,620 |
| 5.00 | 325 | 6.00 | 1,200 | 7.00 | 3,000 | 8.00 | 4,800 |
| 5.10 | 385 | 6.10 | 1,380 | 7.10 | 3,180 | 8.50 | 5,700 |
| 5.20 | 450 | 6.20 | 1,560 | 7.20 | 3,360 | 9.00 | 6,600 |
| 5.30 | 520 | 6.30 | 1,740 | 7.30 | 3,540 | 9.50 | 7,500 |
| 5.40 | 590 | 6.40 | 1,920 | 7.40 | 3,720 | 10.00 | 8,400 |
| 5.50 | 670 | 6.50 | 2,100 | 7.50 | 3,900 | 10.50 | 9,300 |
| 5.60 | 750 | 6.60 | 2,280 | 7.60 | 4,080 | 11.00 | 10,200 |
| 5.70 | 845 | 6.70 | 2,460 | 7.70 | 4,260 | 12.00 | 12,000 |

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., FOR 1904 AND 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.80 | 190 | 5.60 | 710 | 6.30 | 1,540 | 7.00 | 2,740 |
| 4.90 | 235 | 5.70 | 800 | 6.40 | 1,690 | 7.10 | 2,930 |
| 5.00 | 285 | 5.80 | 900 | 6.50 | 1,850 | 7.20 | 3,130 |
| 5.10 | 340 | 5.90 | 1,010 | 6.60 | 2,020 | 7.30 | 3,330 |
| 5.20 | 400 | 6.00 | 1,130 | 6.70 | 2,190 | 7.40 | 3,540 |
| 5.30 | 470 | 6.10 | 1,260 | 6.80 | 2,370 | 7.50 | 3,750 |
| 5.40 | 540 | 6.20 | 1,400 | 6.90 | 2,550 | 7.60 | 3,960 |
| 5.50 | 620 | | | | | | |

NOTE.—The above table is based on 62 discharge measurements made during 1900–1905. It is well defined between gage heights 4.8 feet and 6.8 feet. The table has been extended beyond these limits. Above 7.6 feet the rating curve is a tangent, the difference being 220 per tenth.

RATING TABLE FOR HIWASSEE RIVER AT MURPHY, N. C., FOR 1906 AND 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 5.00 | 310 | 5.90 | 1,010 | 6.80 | 2,370 | 7.70 | 4,180 |
| 5.10 | 365 | 6.00 | 1,130 | 6.90 | 2,550 | 7.80 | 4,400 |
| 5.20 | 425 | 6.10 | 1,260 | 7.00 | 2,740 | 7.90 | 4,620 |
| 5.30 | 490 | 6.20 | 1,400 | 7.10 | 2,930 | 8.00 | 4,840 |
| 5.40 | 560 | 6.30 | 1,540 | 7.20 | 3,130 | 8.20 | 5,280 |
| 5.50 | 635 | 6.40 | 1,690 | 7.30 | 3,330 | 8.40 | 5,720 |
| 5.60 | 715 | 6.50 | 1,850 | 7.40 | 3,540 | | |
| 5.70 | 800 | 6.60 | 2,020 | 7.50 | 3,750 | | |
| 5.80 | 900 | 6.70 | 2,190 | 7.60 | 3,960 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1900 to 1907. It is well defined between gage heights 5.0 feet and 6.8 feet. Above gage height 8.0 feet the rating curve is a tangent, the difference being 220 per tenth.

ESTIMATED MONTHLY DISCHARGE OF HIWASSEE RIVER AT MURPHY, N. C.

[Drainage area, 410 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1897.* | | | | | |
| October 20–31 | 340 | 200 | 243 | 0.593 | 0.265 |
| November | 590 | 300 | 344 | .839 | .936 |
| December | 3,630 | 340 | 829 | 2.02 | 2.33 |
| 1898.* | | | | | |
| January | 4,350 | 390 | 1,049 | 2.56 | 2.95 |
| February | 768 | 464 | 557 | 1.36 | 1.42 |
| March | 10,400 | 450 | 1,171 | 2.86 | 3.30 |
| April | 6,150 | 795 | 1,542 | 3.76 | 4.20 |
| May | 940 | 390 | 630 | 1.54 | 1.78 |
| June | 670 | 320 | 397 | .968 | 1.08 |
| July | 1,560 | 300 | 667 | 1.63 | 1.88 |
| August | 8,400 | 750 | 2,306 | 5.62 | 6.48 |
| September | 15,500 | 590 | 2,659 | 6.49 | 7.24 |
| October | 16,300 | 670 | 2,677 | 6.53 | 7.53 |
| November | 2,460 | 860 | 1,240 | 3.02 | 3.37 |
| December | 1,380 | 840 | 1,031 | 2.51 | 2.89 |
| The year | 16,300 | 300 | 1,327 | 3.24 | 44.12 |
| 1899. | | | | | |
| January | 1,790 | 620 | 878 | 2.14 | 2.47 |
| February | 14,880 | 720 | 3,088 | 7.53 | 7.84 |
| March | 22,360 | 1,450 | 3,715 | 9.06 | 10.45 |
| April | 3,320 | 1,120 | 1,744 | 4.25 | 4.74 |
| May | 1,450 | 460 | 719 | 1.75 | 2.02 |
| June | 970 | 295 | 440 | 1.07 | 1.19 |
| July 8 to 28 | 2,640 | 340 | 556 | 1.36 | 1.06 |
| August | 840 | 340 | 404 | .99 | 1.14 |
| September | 620 | 310 | 373 | .91 | 1.01 |
| October | 840 | 265 | 339 | .83 | .95 |
| November | 905 | 295 | 356 | .87 | .97 |
| December | 6,550 | 340 | 800 | 1.95 | 2.25 |

*Revised estimates.

ESTIMATED MONTHLY DISCHARGE OF HIWASSEE RIVER AT MURPHY, N. C.—*Continued.*

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1900.* | | | | | |
| January | 2,375 | 535 | 858 | 2.09 | 2.41 |
| February | 13,080 | 475 | 1,829 | 4.46 | 4.64 |
| March | 3,950 | 1,325 | 2,141 | 5.22 | 6.01 |
| April | 3,250 | 1,030 | 1,717 | 4.19 | 4.67 |
| May | 1,500 | 670 | 877 | 2.14 | 2.47 |
| June | 3,425 | 670 | 1,702 | 4.15 | 4.63 |
| July | 3,075 | 670 | 1,170 | 2.85 | 3.29 |
| August | 1,165 | 475 | 588 | 1.43 | 1.65 |
| September | 3,075 | 415 | 664 | 1.62 | 1.81 |
| October | 3,250 | 310 | 596 | 1.45 | 1.67 |
| November | 2,550 | 505 | 725 | 1.77 | 1.98 |
| December | 3,425 | 600 | 1,043 | 2.54 | 2.93 |
| The year | 13,080 | 310 | 1,159 | 2.83 | 38.16 |
| 1901. | | | | | |
| January | 6,660 | 670 | 1,599 | 3.90 | 4.50 |
| February | 3,990 | 750 | 1,429 | 3.49 | 3.63 |
| March | 9,840 | 710 | 1,554 | 3.79 | 4.37 |
| April | 10,920 | 1,380 | 2,535 | 6.18 | 6.89 |
| May | 9,480 | 750 | 1,941 | 4.73 | 5.45 |
| June | 2,100 | 840 | 1,265 | 3.09 | 3.45 |
| July | 3,180 | 520 | 829 | 2.02 | 2.33 |
| August | 13,260 | 450 | 3,068 | 7.48 | 8.62 |
| September | 3,360 | 750 | 1,254 | 3.06 | 3.42 |
| October | 1,560 | 485 | 627 | 1.53 | 1.76 |
| November | 630 | 420 | 484 | 1.18 | 1.32 |
| December | 14,340 | 450 | 1,976 | 4.82 | 5.55 |
| The year | 14,340 | 420 | 1,547 | 3.77 | 51.29 |
| 1902. | | | | | |
| January | 3,360 | 750 | 1,203 | 2.93 | 3.38 |
| February | 15,870 | 892 | 2,259 | 5.51 | 5.74 |
| March | 10,020 | 1,290 | 2,582 | 6.30 | 7.26 |
| April | 2,370 | 845 | 1,331 | 3.25 | 3.63 |
| May | 940 | 485 | 677 | 1.65 | 1.90 |
| June | 710 | 450 | 587 | 1.43 | 1.60 |
| July | 670 | 265 | 363 | .89 | 1.03 |
| August | 450 | 190 | 232 | .57 | .66 |
| September | 555 | 190 | 336 | .82 | .91 |
| October | 485 | 265 | 347 | .85 | .98 |
| November | 1,200 | 265 | 450 | 1.10 | 1.23 |
| December | 2,370 | 520 | 834 | 2.03 | 2.34 |
| The year | 15,870 | 190 | 934 | 2.28 | 30.66 |
| 1903. | | | | | |
| January | 1,135 | 355 | 698 | 1.70 | 1.96 |
| February | 12,000 | 590 | 2,498 | 6.09 | 6.34 |
| March | 11,640 | 1,650 | 3,708 | 9.04 | 10.42 |
| April | 4,170 | 1,135 | 2,143 | 5.23 | 5.83 |
| May | 1,740 | 630 | 890 | 2.17 | 2.50 |
| June | 2,550 | 590 | 1,053 | 2.57 | 2.87 |
| July | 1,470 | 485 | 695 | 1.70 | 1.96 |
| August | 2,100 | 295 | 500 | 1.22 | 1.41 |
| September | 630 | 235 | 304 | .74 | .83 |
| October | 1,070 | 235 | 280 | .68 | .78 |
| November | 630 | 265 | 320 | .78 | .87 |
| December | 485 | 235 | 290 | .71 | .82 |
| The year | 12,000 | 235 | 1,115 | 2.72 | 36.59 |

*Low-water estimates for 1900 are probably a few per cent too high.

ESTIMATED MONTHLY DISCHARGE OF HIWASSEE RIVER AT MURPHY, N. C.—*Continued.*

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| January | 1,540 | 212 | 401 | .978 | 1.13 |
| February | 1,935 | 340 | 671 | 1.64 | 1.77 |
| March | 4,400 | 540 | 1,303 | 3.17 | 3.66 |
| April | 1,850 | 540 | 777 | 1.90 | 2.12 |
| May | 1,260 | 400 | 605 | 1.48 | 1.71 |
| June | 2,460 | 312 | 532 | 1.30 | 1.45 |
| July | 1,330 | 260 | 380 | .927 | 1.07 |
| August | 3,230 | 312 | 573 | 1.40 | 1.61 |
| September | 665 | 212 | 282 | .688 | .768 |
| October | 190 | 150 | 176 | .429 | .495 |
| November | 435 | 170 | 224 | .546 | .609 |
| December | 1,770 | 260 | 438 | 1.07 | 1.23 |
| The year | 4,400 | 150 | 530 | 1.29 | 17.62 |
| 1905. | | | | | |
| January | 2,020 | 370 | 695 | 1.70 | 1.96 |
| February | 6,600 | 400 | 1,602 | 3.91 | 4.07 |
| March | 2,740 | 665 | 907 | 2.21 | 2.55 |
| April | 2,645 | 580 | 815 | 1.99 | 2.22 |
| May | 3,130 | 755 | 1,282 | 3.13 | 3.61 |
| June | 2,280 | 470 | 664 | 1.62 | 1.81 |
| July | 10,500 | 435 | 1,102 | 2.69 | 3.10 |
| August | 1,850 | 370 | 647 | 1.58 | 1.82 |
| September | 470 | 260 | 307 | .749 | .836 |
| October | 3,855 | 260 | 449 | 1.10 | 1.27 |
| November | 505 | 285 | 316 | .771 | .860 |
| December | 9,550 | 370 | 1,518 | 3.70 | 4.27 |
| The year | 10,500 | 260 | 859 | 2.10 | 28.38 |
| 1906. | | | | | |
| January | 8,140 | 715 | 1,760 | 4.29 | 4.95 |
| February | 1,260 | 635 | 830 | 2.02 | 2.10 |
| March | 3,960 | 635 | 1,410 | 3.44 | 3.97 |
| April | 3,540 | 900 | 1,410 | 3.44 | 3.84 |
| May | 1,470 | 525 | 749 | 1.83 | 2.11 |
| June | 2,190 | 365 | 912 | 2.22 | 2.48 |
| July | 5,280 | 560 | 1,150 | 2.80 | 3.23 |
| August | 6,380 | 715 | 1,520 | 3.71 | 4.28 |
| September | 8,360 | 338 | 1,570 | 3.83 | 4.27 |
| October | 7,040 | 850 | 1,950 | 4.76 | 5.49 |
| November | 22,000 | 715 | 1,990 | 4.85 | 5.41 |
| December | 4,400 | 1,010 | 1,630 | 3.98 | 4.59 |
| The year | 22,000 | 338 | 1,410 | 3.43 | 46.72 |
| 1907. | | | | | |
| January | 2,550 | 850 | 1,220 | 2.98 | 3.44 |
| February | 3,960 | 850 | 1,460 | 3.56 | 3.71 |
| March | 5,500 | 800 | 1,370 | 3.34 | 3.85 |
| April | 3,130 | 758 | 1,150 | 2.80 | 3.12 |
| May | 1,690 | 758 | 1,010 | 2.46 | 2.84 |
| June | 2,280 | 758 | 1,130 | 2.76 | 3.08 |
| July | 6,380 | 560 | 1,030 | 2.51 | 2.89 |
| August | 2,020 | 525 | 861 | 2.10 | 2.42 |
| September | 12,300 | 458 | 1,200 | 2.93 | 3.27 |
| October | 955 | 458 | 577 | 1.41 | 1.63 |
| November | 3,540 | 525 | 915 | 2.23 | 2.49 |
| December | 2,740 | 598 | 1,220 | 2.98 | 3.44 |
| The year | 12,300 | 458 | 1,100 | 2.67 | 36.18 |

NOTE.—Values for 1906 are excellent.

### HIWASSEE RIVER NEAR HAYESVILLE, N. C.

This station was established on May 20, 1907. It is located at the Hiwassee iron wagon bridge 2½ miles east of Hayesville on the road to Hiwassee, Ga.

The gage is a vertical rod attached to a maple tree on left bank, about 200 feet above the bridge.

Discharge measurements are made from the downstream side on a single span iron wagon bridge, with short approaches at both ends.

The channel is straight for 500 feet above and 800 feet below the bridge. The current is swift and the bed is composed largely of rock and is permanent. Both banks of the river are high and will seldom be flooded beyond the end of the bridge.

The bench mark is top of downstream end of third iron floor beam from left end of steel span; elevation, 21.36 feet.

DISCHARGE MEASUREMENTS OF HIWASSEE RIVER NEAR HAYESVILLE, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 20 | F. A. Murray | 89 | 136 | 3.21 | 1.41 | 437 |
| Aug. 22 | Frank P. Thomas | 90 | 134 | 2.91 | 1.32 | 390 |
| Aug. 22 | F. A. Murray | 88 | 132 | 2.89 | 1.32 | 382 |
| Oct. 14 | Olin P. Hall | 89 | 131 | 1.85 | 1.00 | 242 |

DAILY GAGE HEIGHT, IN FEET, OF HIWASSEE RIVER NEAR HAYESVILLE, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.40 | 1.30 | 1.25 | 1.00 | 1.30 | .90 | 1.25 |
| 2 | | 1.90 | 1.30 | 1.20 | .90 | 1.20 | 1.40 | 1.20 |
| 3 | | 1.80 | 1.30 | 1.15 | 1.00 | 1.20 | 1.05 | 1.20 |
| 4 | | 1.70 | 1.70 | 1.10 | 1.10 | 1.20 | 1.05 | 1.20 |
| 5 | | 1.55 | 1.40 | 1.10 | 1.10 | 1.25 | 1.00 | 1.15 |
| 6 | | 1.45 | 1.30 | 1.10 | 1.00 | 1.15 | 1.10 | 1.15 |
| 7 | | 1.45 | 1.30 | 1.10 | .95 | 1.10 | 1.00 | 1.15 |
| 8 | | 2.30 | 1.30 | 1.20 | 1.00 | 1.45 | 1.00 | 1.10 |
| 9 | | 1.90 | 1.30 | 1.10 | 1.00 | 1.15 | .95 | 1.35 |
| 10 | | 1.80 | 1.25 | 1.10 | 1.30 | 1.10 | 1.50 | 2.50 |
| 11 | | 1.80 | 1.50 | 1.05 | 1.60 | 1.00 | 1.30 | 1.80 |
| 12 | | 1.55 | 1.60 | 1.30 | 1.15 | 1.00 | 1.20 | 1.55 |
| 13 | | 1.50 | 2.10 | 1.10 | 1.10 | 1.00 | 1.20 | 1.50 |
| 14 | | 1.80 | 1.50 | 1.35 | 1.00 | 1.00 | 1.10 | 2.50 |
| 15 | | 1.50 | 1.40 | 2.70 | 1.00 | 1.00 | 1.05 | 2.30 |
| 16 | | 1.45 | 1.50 | 1.50 | .95 | 1.00 | 1.00 | 1.90 |
| 17 | | 1.40 | 1.40 | 1.30 | .92 | .95 | 1.00 | 1.80 |
| 18 | | 1.40 | 1.35 | 1.70 | .92 | .90 | 1.40 | 1.70 |
| 19 | | 1.40 | 1.40 | 1.45 | .90 | .90 | 1.20 | 1.60 |
| 20 | 1.40 | 1.40 | 1.40 | 1.30 | .90 | .90 | 1.15 | 1.50 |
| 21 | 1.40 | 1.40 | 1.35 | 1.35 | .89 | .90 | 1.90 | 1.40 |
| 22 | 1.40 | 1.35 | 1.30 | 1.35 | 1.05 | .90 | 1.60 | 1.40 |
| 23 | 1.40 | 1.50 | 1.25 | 1.30 | 9.30 | .90 | 2.10 | 2.90 |
| 24 | 1.40 | 1.60 | 1.20 | 1.35 | 2.10 | 1.00 | 2.90 | 2.20 |
| 25 | 1.40 | 1.55 | 1.20 | 1.20 | 1.50 | .95 | 1.90 | 2.00 |
| 26 | 2.20 | 1.45 | 1.20 | 1.15 | 1.30 | .90 | 1.60 | 1.90 |
| 27 | 1.55 | 1.40 | 1.15 | 1.10 | 1.20 | 1.40 | 1.50 | 1.80 |
| 28 | 1.40 | 1.40 | 1.15 | 1.05 | 1.80 | 1.10 | 1.40 | 1.70 |
| 29 | 1.40 | 1.50 | 1.10 | 1.05 | 1.80 | 1.00 | 1.30 | 1.60 |
| 30 | 1.40 | 1.40 | 2.10 | 1.00 | 1.50 | .95 | 1.25 | 3.40 |
| 31 | 1.90 | | 1.30 | 1.00 | | .90 | | 2.40 |

Daily Gage Height, in Feet, of Hiwassee River near Hayesville, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.10 | 2.40 | 1.70 | 1.95 | 2.00 | 1.45 | 1.05 | .90 | 1.00 | .80 |
| 2 | 1.90 | 1.90 | 1.70 | 1.90 | 1.90 | 1.40 | 1.00 | .90 | .95 | .80 |
| 3 | 1.80 | 1.80 | 1.95 | 1.85 | 1.95 | 1.40 | 1.20 | .90 | .90 | .75 |
| 4 | 1.70 | 1.75 | 1.90 | 1.80 | 1.80 | 1.50 | 1.20 | .90 | .90 | .75 |
| 5 | 3.10 | 1.70 | 1.83 | 1.75 | 1.80 | 1.40 | 1.90 | 1.00 | .95 | .75 |
| 6 | 2.35 | 2.00 | 1.80 | 1.90 | 1.80 | 1.40 | 1.50 | 1.30 | 1.50 | .75 |
| 7 | 2.25 | 1.80 | 1.75 | 1.80 | 2.50 | 1.35 | 1.50 | 1.10 | 1.20 | .75 |
| 8 | 2.00 | 1.70 | 1.70 | 1.75 | 1.95 | 1.35 | 1.90 | 1.10 | 1.10 | .70 |
| 9 | 1.80 | 1.65 | 1.70 | 1.70 | 1.90 | 1.30 | 2.20 | 1.40 | 1.05 | .90 |
| 10 | 1.70 | 2.20 | 1.65 | 1.70 | 1.85 | 1.30 | 1.70 | 1.05 | 1.00 | 1.50 |
| 11 | 1.75 | 2.40 | 1.60 | 1.65 | 1.75 | 1.40 | 1.70 | 1.00 | 1.00 | 1.05 |
| 12 | 5.00 | 2.70 | 2.40 | 1.60 | 1.70 | 1.30 | 1.40 | .95 | 1.00 | .95 |
| 13 | 3.10 | 2.60 | 1.90 | 1.60 | 1.65 | 1.25 | 1.30 | .90 | .95 | .85 |
| 14 | 2.50 | 2.50 | 1.85 | 1.55 | 1.60 | 1.60 | 1.25 | .90 | .90 | .85 |
| 15 | 2.30 | 7.90 | 1.80 | 2.40 | 1.60 | 1.45 | 1.20 | .90 | .90 | .80 |
| 16 | 2.10 | 3.80 | 1.75 | 2.20 | 1.55 | 1.30 | 1.30 | .85 | .85 | .80 |
| 17 | 2.20 | 3.00 | 1.65 | 2.05 | 1.55 | 1.25 | 1.20 | .85 | .80 | .80 |
| 18 | 2.05 | 2.60 | 1.60 | 1.95 | 1.60 | 1.30 | 1.15 | .90 | .80 | .80 |
| 19 | 1.90 | 2.65 | 1.60 | 2.15 | 2.10 | 1.20 | 1.30 | .85 | .80 | .80 |
| 20 | 1.85 | 2.35 | 2.50 | 2.00 | 1.70 | 1.15 | 1.15 | 1.10 | .80 | .80 |
| 21 | 1.80 | 2.20 | 2.60 | 1.90 | 1.60 | 1.25 | 1.10 | .90 | .80 | .80 |
| 22 | 1.80 | 2.05 | 2.20 | 1.80 | 1.55 | 1.30 | 1.05 | 1.50 | .80 | .75 |
| 23 | 1.80 | 2.00 | 5.20 | 1.80 | 1.50 | 1.20 | 1.00 | 1.35 | .80 | 2.00 |
| 24 | 1.70 | 1.95 | 4.90 | 1.75 | 1.70 | 1.20 | 1.00 | 1.35 | .80 | 1.50 |
| 25 | 1.65 | 1.90 | 3.20 | 4.90 | 1.60 | 1.20 | 1.10 | 1.95 | .80 | 1.20 |
| 26 | 1.60 | 2.05 | 2.75 | 2.90 | 1.70 | 1.10 | 1.10 | 1.60 | .80 | 1.10 |
| 27 | 1.90 | 1.90 | 2.50 | 2.60 | 1.70 | 1.10 | 1.05 | 1.40 | .80 | 1.00 |
| 28 | 1.70 | 1.80 | 2.20 | 2.30 | 1.60 | 1.10 | 1.00 | 1.20 | .95 | 1.10 |
| 29 | 1.75 | 1.80 | 2.15 | 2.15 | 1.50 | 1.10 | 1.10 | 1.10 | .85 | 2.10 |
| 30 | 1.60 | ..... | 2.05 | 2.15 | 1.60 | 1.05 | 1.05 | 1.10 | .80 | 1.50 |
| 31 | 1.50 | ..... | 2.00 | ..... | 1.50 | ..... | 1.00 | 1.05 | ..... | 1.35 |

Rating Table for Hiwassee River near Hayesville, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.75 | 164 | .95 | 220 | 1.15 | 296 | 1.35 | 400 |
| .80 | 176 | 1.00 | 236 | 1.20 | 318 | 1.40 | 430 |
| .85 | 190 | 1.05 | 255 | 1.25 | 344 | 1.45 | 465 |
| .90 | 204 | 1.10 | 274 | 1.30 | 370 | 1.50 | 500 |

## NOTTELY RIVER AT RANGER, N. C.

This station was established February 16, 1901. It is located at the wooden wagon bridge one-half mile from the railroad station at Ranger, N. C., and one-fourth mile below the Atlanta, Knoxville and Northern Railroad bridge.

The bridge is at a flat bend in the river, the channel curving slightly above and below the station for 600 feet. The right bank is high, rocky, and somewhat wooded and will overflow around the end of the bridge for about 50 feet only. The left bank is low and will overflow for a distance of 700 feet at a gage height of from 15 to 18 feet. The bed of the stream is of gravel and sand and probably shifts considerably. The current is somewhat broken and irregular, caused mostly by the piers. There is a moderate velocity and a depth of from 2 to 5 feet at low stages.

Discharge measurements are made from the wagon bridge, a wooden structure of 3 spans supported by 2 wooden piers and 2 stone abutments. The center span is 55 feet long, and the end spans are each 36 feet long. The floor of the bridge is about 20 feet above low water.

The gage is a vertical board in two sections, each 8 feet long, fastened to the left side of the first wooden pier from the right bank. The gage is read once each day by A. D. Kilpatrick. Bench marks were established as follows: (1) The heads of large wire nails driven into the top of the downstream end of the wooden cap on the left bent of the wooden pier nearest the right bank of the river; elevation, 20.05 feet. (2) A cut on a maple tree 18 inches in diameter, 25 feet from the upstream side of the bridge on the right bank, 25 feet from the edge of the water; elevation, 15.00 feet. Elevations refer to the datum of the gage.

The station was discontinued on December 31, 1905.

Discharge Measurements of Nottely River at Ranger, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1901. | | | | | | |
| Jan. 17 | Olin P. Hall | -- | --- | ---- | 4.50 | 730 |
| Feb. 16 | ----do | -- | 330 | 1.97 | 4.20 | 649 |
| Apr. 4 | ----do | -- | 431 | 2.25 | 5.40 | 970 |
| June 27 | ----do | -- | 337 | 1.82 | 4.12 | 612 |
| Oct. 31 | ----do | -- | 263 | 1.38 | 3.40 | 364 |
| 1902. | | | | | | |
| Apr. 24 | Olin P. Hall | -- | 307 | 1.95 | 4.20 | 598 |
| Aug. 14 | ----do | -- | 204 | 1.04 | 2.70 | 213 |
| Nov. 21 | ----do | -- | 195 | 1.09 | 2.75 | 213 |
| 1903. | | | | | | |
| Mar. 19 | O. P. Hall | -- | 337 | ---- | 4.75 | 833 |
| May 15 | M. R. Hall | -- | 301 | ---- | 3.95 | 551 |
| July 30 | O. P. Hall | -- | 237 | ---- | 3.42 | 372 |
| Aug. 28 | ----do | -- | 216 | ---- | 2.88 | 267 |
| Oct. 2 | ----do | -- | 188 | ---- | 2.62 | 183 |
| Dec. 5 | ----do | -- | 199 | ---- | 2.68 | 204 |
| 1904. | | | | | | |
| Mar. 1 | O. P. Hall | -- | 236 | 1.58 | 3.40 | 373 |
| May 14 | ----do | -- | 240 | 1.47 | 3.35 | 353 |
| Aug. 30 | ----do | -- | 198 | 1.12 | 2.75 | 222 |
| Oct. 7 | ----do | -- | 176 | .69 | 2.30 | 121 |
| Dec. 16 | M. R. Hall | -- | 190 | .97 | 2.58 | 184 |
| 1905. | | | | | | |
| Apr. 17 | O. P. Hall | 70 | 248 | 1.70 | 3.48 | 421 |
| June 20 | ----do | 71 | 224 | 1.78 | 3.51 | 399 |
| June 21 | ----do | 72 | 268 | 2.01 | 3.98 | 538 |
| Oct. 12 | ----do | 69 | 226 | 1.40 | 3.22 | 315 |

DAILY GAGE HEIGHT, IN FEET, OF NOTTELY RIVER AT RANGER, N. C., FOR 1901-1902.

| 1901. (Day) | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 3.60 | 4.80 | 4.40 | 6.00 | 5.00 | 3.50 | 6.00 | 4.10 | 3.40 | 3.40 |
| 2 | | 3.60 | 8.80 | 4.30 | 4.80 | 5.20 | 3.40 | 5.20 | 4.00 | 3.40 | 3.40 |
| 3 | | 3.60 | 7.00 | 4.30 | 4.60 | 4.20 | 3.30 | 5.00 | 3.90 | 3.40 | 3.40 |
| 4 | | 3.60 | 5.60 | 4.20 | 5.00 | 4.10 | 3.20 | 4.80 | 3.90 | 3.60 | 3.40 |
| 5 | | 3.80 | 5.20 | 4.20 | 4.60 | 4.00 | 3.10 | 5.00 | 3.80 | 3.40 | 3.40 |
| 6 | | 3.70 | 5.10 | 4.20 | 5.40 | 3.90 | 9.60 | 4.80 | 3.80 | 3.40 | 3.40 |
| 7 | | 3.60 | 4.90 | 4.10 | 4.80 | 4.80 | 9.20 | 4.60 | 4.00 | 3.40 | 3.40 |
| 8 | | 3.60 | 4.70 | 4.10 | 4.40 | 4.60 | 4.80 | 4.50 | 3.90 | 3.40 | 3.40 |
| 9 | | 3.80 | 4.60 | 4.10 | 4.20 | 4.00 | 4.60 | 4.40 | 3.80 | 3.30 | 3.40 |
| 10 | | 5.20 | 4.50 | 4.00 | 4.10 | 3.80 | 4.20 | 4.20 | 3.80 | 3.30 | 6.00 |
| 11 | | 5.60 | 4.30 | 3.90 | 4.00 | 3.70 | 4.80 | 4.80 | 3.70 | 3.30 | 4.50 |
| 12 | | 4.20 | 4.20 | 3.90 | 3.90 | 3.60 | 4.60 | 4.40 | 3.60 | 3.30 | 3.70 |
| 13 | | 4.10 | 5.20 | 3.80 | 4.80 | 3.50 | 4.80 | 5.00 | 4.60 | 3.60 | 3.40 |
| 14 | | 4.00 | 5.00 | 3.80 | 7.00 | 3.50 | 14.40 | 4.60 | 4.00 | 3.40 | 6.00 |
| 15 | | 3.90 | 4.90 | 3.70 | 5.60 | 3.40 | 9.60 | 4.40 | 3.80 | 3.40 | 13.00 |
| 16 | 4.20 | 3.90 | 4.70 | 3.60 | 5.80 | 4.00 | 9.20 | 5.00 | 3.70 | 3.40 | 6.00 |
| 17 | 4.10 | 3.80 | 4.50 | 3.60 | 5.40 | 3.90 | 10.00 | 11.00 | 3.70 | 3.40 | 5.00 |
| 18 | 4.00 | 3.80 | 4.40 | 3.50 | 5.60 | 3.80 | 10.80 | 6.20 | 3.60 | 3.40 | 4.50 |
| 19 | 4.00 | 3.70 | 7.80 | 4.20 | 4.80 | 9.80 | 8.00 | 5.00 | 3.60 | 3.40 | 4.00 |
| 20 | 3.90 | 3.70 | 8.80 | 6.40 | 5.00 | 4.20 | 6.80 | 4.80 | 3.50 | 3.40 | 3.40 |
| 21 | 3.80 | 3.60 | 6.20 | 11.80 | 4.60 | 4.00 | 10.00 | 4.60 | 3.50 | 3.40 | 3.40 |
| 22 | 3.80 | 3.60 | 5.70 | 15.00 | 4.40 | 3.80 | 11.00 | 4.40 | 3.50 | 3.40 | 3.40 |
| 23 | 3.70 | 4.80 | 5.50 | 8.50 | 4.20 | 3.60 | 15.80 | 4.30 | 3.40 | 3.40 | 4.00 |
| 24 | 3.70 | 5.40 | 5.20 | 5.60 | 4.10 | 3.50 | 8.40 | 4.20 | 3.40 | 4.00 | 4.50 |
| 25 | 3.70 | 6.20 | 5.00 | 5.40 | 4.00 | 3.50 | 6.20 | 4.10 | 3.40 | 3.40 | 4.00 |
| 26 | 3.70 | 13.50 | 4.80 | 5.20 | 5.20 | 3.40 | 6.40 | 4.00 | 3.30 | 3.40 | 4.00 |
| 27 | 3.70 | 8.20 | 4.70 | 5.00 | 4.10 | 3.80 | 6.40 | 3.90 | 3.30 | 3.40 | 6.50 |
| 28 | 3.70 | 6.20 | 4.60 | 4.90 | 4.00 | 3.50 | 6.20 | 4.20 | 3.30 | 3.40 | 6.00 |
| 29 | | 5.40 | 4.50 | 4.80 | 4.00 | 3.80 | 6.00 | 4.40 | 3.30 | 3.40 | 20.00 |
| 30 | | 5.20 | 4.40 | 4.70 | 4.60 | 3.60 | 5.80 | 4.10 | 3.40 | 3.40 | 10.00 |
| 31 | | 5.20 | | 5.00 | | 3.70 | 5.60 | | 3.40 | | 6.00 |

| 1902. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.50 | 7.00 | 9.00 | 5.00 | 4.10 | 3.40 | 3.00 | 2.80 | 2.60 | 2.90 | 2.30 | 3.30 |
| 2 | 5.00 | 7.00 | 7.20 | 5.00 | 4.00 | 3.30 | 2.90 | 2.80 | 2.60 | 2.90 | 2.60 | 3.50 |
| 3 | 5.00 | 9.10 | 6.10 | 5.00 | 4.00 | 3.30 | 2.90 | 3.00 | 3.00 | 2.70 | 2.60 | 6.20 |
| 4 | 4.50 | 7.80 | 6.00 | 5.00 | 4.00 | 3.20 | 2.80 | 2.80 | 3.30 | 2.70 | 2.60 | 4.30 |
| 5 | 4.80 | 5.50 | 6.30 | 5.10 | 4.00 | 3.20 | 2.80 | 2.80 | 2.80 | 2.70 | 2.50 | 4.40 |
| 6 | 4.40 | 5.00 | 5.80 | 5.00 | 4.00 | 3.20 | 2.80 | 2.80 | 2.60 | 2.60 | 2.50 | 4.30 |
| 7 | 4.40 | 4.90 | 5.40 | 4.80 | 4.00 | 3.10 | 2.80 | 2.60 | 2.60 | 2.60 | 4.00 | 4.30 |
| 8 | 4.40 | 4.90 | 5.30 | 4.20 | 3.70 | 3.80 | 2.80 | 2.60 | 2.50 | 2.50 | 4.00 | 3.00 |
| 9 | 4.40 | 4.50 | 5.20 | 5.00 | 3.70 | 3.60 | 2.70 | 2.60 | 2.70 | 2.80 | 2.80 | 3.00 |
| 10 | 4.30 | 4.30 | 5.10 | 5.00 | 3.70 | 3.30 | 3.00 | 2.60 | 2.90 | 2.70 | 2.80 | 3.80 |
| 11 | 4.20 | 4.20 | 5.10 | 5.00 | 3.70 | 3.20 | 3.00 | 3.80 | 2.60 | 3.00 | 2.70 | 3.50 |
| 12 | 4.20 | 4.10 | 5.00 | 4.80 | 3.60 | 3.10 | 3.70 | 3.60 | 2.50 | 2.70 | 2.70 | 3.40 |
| 13 | 4.00 | 4.00 | 6.20 | 4.40 | 3.60 | 3.10 | 4.40 | 2.60 | 3.40 | 2.90 | 2.70 | 3.40 |
| 14 | 3.80 | 4.00 | 5.00 | 4.40 | 4.70 | 3.10 | 3.60 | 2.60 | 3.00 | 3.30 | 2.50 | 3.30 |
| 15 | 3.40 | 4.00 | 5.00 | 4.40 | 4.60 | 3.10 | 4.80 | 2.60 | 2.80 | 3.50 | 2.50 | 3.30 |
| 16 | 3.40 | 4.10 | 6.20 | 4.40 | 3.80 | 3.00 | 4.30 | 2.60 | 2.80 | 3.00 | 2.50 | 5.40 |
| 17 | 3.20 | 4.00 | 5.20 | 4.60 | 3.70 | 3.00 | 4.00 | 2.60 | 2.70 | 2.90 | 2.40 | 4.60 |
| 18 | 3.00 | 4.00 | 5.80 | 4.50 | 3.70 | 3.00 | 3.00 | 2.60 | 2.70 | 2.70 | 3.70 | 4.60 |
| 19 | 4.00 | 4.00 | 5.60 | 4.40 | 3.70 | 3.00 | 3.00 | 2.60 | 3.30 | 2.90 | 3.20 | 3.80 |
| 20 | 4.00 | 4.00 | 5.00 | 4.20 | 3.60 | 3.00 | 3.00 | 2.60 | 3.00 | 2.80 | 3.00 | 3.70 |
| 21 | 4.00 | 4.10 | 5.00 | 4.00 | 3.60 | 3.30 | 2.80 | 2.40 | 3.00 | 2.80 | 2.90 | 5.40 |
| 22 | 4.00 | 5.00 | 4.90 | 4.10 | 3.50 | 3.10 | 2.80 | 2.40 | 2.80 | 2.70 | 2.80 | 5.20 |
| 23 | 3.80 | 4.50 | 4.80 | 4.10 | 3.40 | 3.00 | 2.80 | 2.40 | 2.60 | 2.70 | 2.80 | 4.40 |
| 24 | 3.80 | 4.40 | 4.70 | 4.10 | 3.30 | 3.00 | 2.80 | 2.50 | 2.60 | 2.70 | 2.70 | 3.80 |
| 25 | 3.80 | 4.80 | 4.60 | 4.10 | 3.30 | 3.00 | 2.70 | 2.50 | 2.90 | 2.60 | 5.30 | 3.60 |
| 26 | 3.80 | 4.60 | 4.60 | 4.00 | 3.30 | 3.60 | 2.70 | 2.70 | 2.70 | 2.50 | 4.40 | 3.50 |
| 27 | 4.00 | 4.80 | 4.70 | 4.00 | 3.30 | 3.60 | 2.70 | 3.00 | 2.60 | 2.50 | 3.70 | 3.60 |
| 28 | 4.40 | 21.00 | 4.70 | 4.00 | 3.30 | 3.00 | 2.70 | 2.80 | 3.10 | 2.50 | 3.10 | 3.40 |
| 29 | 4.50 | | 13.80 | 4.20 | 3.40 | 3.00 | 2.80 | 2.80 | 3.00 | 2.40 | 3.00 | 5.20 |
| 30 | 5.00 | | 6.80 | 4.30 | 3.40 | 3.00 | 2.80 | 2.70 | 3.00 | 2.40 | 3.00 | 5.00 |
| 31 | 6.30 | | 5.20 | | 3.40 | | 2.80 | 2.70 | | 2.30 | | 3.40 |

DAILY GAGE HEIGHT, IN FEET, OF NOTTELY RIVER AT RANGER, N. C., FOR 1903-1904.

| 1903. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.20 | 3.20 | 8.80 | 6.40 | 4.20 | 6.00 | 3.80 | 7.00 | 2.80 | 2.60 | 2.70 | 2.50 |
| 2 | 3.20 | 3.50 | 6.30 | 6.10 | 4.40 | 7.00 | 3.70 | 4.40 | 2.80 | 2.50 | 2.70 | 2.50 |
| 3 | 3.00 | 3.60 | 5.80 | 5.70 | 4.30 | 6.00 | 3.60 | 3.70 | 2.70 | 2.50 | 2.80 | 2.50 |
| 4 | 4.00 | 9.60 | 5.40 | 5.80 | 4.20 | 6.40 | 3.90 | 3.60 | 2.70 | 2.50 | 2.90 | 2.50 |
| 5 | 3.80 | 6.00 | 5.00 | 5.30 | 4.20 | 7.40 | 3.60 | 3.50 | 2.70 | 2.60 | 2.90 | 2.60 |
| 6 | 3.70 | 4.80 | 4.90 | 5.20 | 4.10 | 7.00 | 3.60 | 3.40 | 2.90 | 2.60 | 2.90 | 2.60 |
| 7 | 3.70 | 6.00 | 5.00 | 5.10 | 4.00 | 7.50 | 3.70 | 3.30 | 2.80 | 2.60 | 2.90 | 2.60 |
| 8 | 3.60 | 7.60 | 5.20 | 5.00 | 4.00 | 5.00 | 3.70 | 3.20 | 2.80 | 4.00 | 2.90 | 2.50 |
| 9 | 3.60 | 5.40 | 6.70 | 7.00 | 4.00 | 5.00 | 3.80 | 3.00 | 3.20 | 2.80 | 2.80 | 2.50 |
| 10 | 3.80 | 4.90 | 6.20 | 6.50 | 4.90 | 4.90 | 4.00 | 3.10 | 2.90 | 2 70 | 2.80 | 2.50 |
| 11 | 3.80 | 7.60 | 11.00 | 5.80 | 3.90 | 5.20 | 3.90 | 3.40 | 2.80 | 2.70 | 2.70 | 2.50 |
| 12 | 4.80 | 7.00 | 7.60 | 5.00 | 3.90 | 5.20 | 5.00 | 3.30 | 2.80 | 2.70 | 3.00 | 2.50 |
| 13 | 3.80 | 5.40 | 6.20 | 8.60 | 3.90 | 5.00 | 5.80 | 3.20 | 2.70 | 2.60 | 2.80 | 2.50 |
| 14 | 3.80 | 5.00 | 5.00 | 8.00 | 3.90 | 4.00 | 5.00 | 4.00 | 2.70 | 2.60 | 2.70 | 2.50 |
| 15 | 3.70 | 4.70 | 5.40 | 6.60 | 3.90 | 4.00 | 4.00 | 4.00 | 2.70 | 2.80 | 2.60 | 2.50 |
| 16 | 3.60 | 4.70 | 5.10 | 5.80 | 3.90 | 4.00 | 3.90 | 3.70 | 2.70 | 2.80 | 2.60 | 2.50 |
| 17 | 3.50 | 8.00 | 5.10 | 5.70 | 3.80 | 3.80 | 4.40 | 3.30 | 4.00 | 2.90 | 2.80 | 2.60 |
| 18 | 3.60 | 5.60 | 5.00 | 5.50 | 3.80 | 3.80 | 3.70 | 3.40 | 3.20 | 2.80 | 4.00 | 2.60 |
| 19 | 3.50 | 5.20 | 4.90 | 5.40 | 3.80 | 3.80 | 3.60 | 3.40 | 2.90 | 2.70 | 3.00 | 2.70 |
| 20 | 3.40 | 5.00 | 4.70 | 5.20 | 3.80 | 3.70 | 4.70 | 3.30 | 2.80 | 2.70 | 2.80 | 3.50 |
| 21 | 3.40 | 4.70 | 7.00 | 5.00 | 4.00 | 3.70 | 4.00 | 3.00 | 2.90 | 2.70 | 2.80 | 3.40 |
| 22 | 3.30 | 4.70 | 8.00 | 5.20 | 3.70 | 3.60 | 3.50 | 3.00 | 2.80 | 2.70 | 2.80 | 3.40 |
| 23 | 3.30 | 4.60 | 14.80 | 4.80 | 3.50 | 3.50 | 3.40 | 3.20 | 2.80 | 2.60 | 2.70 | 3.80 |
| 24 | 3.30 | 4.40 | 8.00 | 4.70 | 3.50 | 3.50 | 3.30 | 3.00 | 2.70 | 2.60 | 2.70 | 3.70 |
| 25 | 3.40 | 4.40 | 6.20 | 4.60 | 3.60 | 3.50 | 3.00 | 3.00 | 2.70 | 2.60 | 2.70 | 3.60 |
| 26 | 3.40 | 4.30 | 6.10 | 4.70 | 3.60 | 5.00 | 3.10 | 2.90 | 2.70 | 2.60 | 2.60 | 3.50 |
| 27 | 3.30 | 4.50 | 5.60 | 4.70 | 3.60 | 5.00 | 3.10 | 2.90 | 2.70 | 2.60 | 2.60 | 3.40 |
| 28 | 3.40 | 17.50 | 5.20 | 4.60 | 3.70 | 4.70 | 3.10 | 2.90 | 2.70 | 2.50 | 2.60 | 3.20 |
| 29 | 3.60 | ------- | 5.00 | 4.50 | 3.90 | 4.00 | 3.00 | 2.90 | 2.60 | 2.50 | 2.60 | 3.10 |
| 30 | 3.70 | ------- | 6.40 | 4.30 | 5.50 | 3.80 | 3.00 | 2.90 | 2.60 | 2.70 | 2.50 | 3.00 |
| 31 | 3.60 | ------- | 7.70 | ------- | 5.70 | ------- | 4.00 | 2.80 | ------- | 2.70 | ------ | 2.80 |
| 1904. | | | | | | | | | | | | |
| 1 | 2.80 | 3.00 | 3.40 | 3.80 | 3.30 | 3.30 | 2.90 | 3.40 | 2.70 | 2.30 | 2.20 | 2.80 |
| 2 | 2.80 | 2.90 | 3.40 | 3.70 | 3.30 | 3.30 | 2.70 | 3.00 | 2.60 | 2.30 | 2.20 | 2.40 |
| 3 | 2.80 | 2.90 | 3.30 | 3.60 | 3.30 | 3.00 | 2.50 | 2.80 | 2.60 | 2.30 | 2.20 | 2.40 |
| 4 | 2.70 | 3.40 | 3.30 | 3.50 | 3.30 | 2.90 | 2.40 | 2.80 | 2.70 | 2.20 | 2.40 | 2.80 |
| 5 | 2.70 | 3.20 | 3.30 | 3.40 | 3.30 | 2.90 | 2.40 | 3.60 | 4.10 | 2.20 | 2.30 | 4.10 |
| 6 | 2.60 | 3.00 | 3.20 | 3.30 | 3.20 | 2.80 | 2.90 | 3.00 | 3.00 | 2.20 | 2.30 | 3.60 |
| 7 | 2.80 | 3.00 | 8.30 | 4.20 | 3.20 | 7.30 | 2.70 | 2.80 | 2.80 | 2.20 | 2.30 | 3.10 |
| 8 | 2.70 | 4.50 | 5.10 | 5.60 | 3.30 | 4.70 | 2.70 | 5.00 | 2.70 | 2.20 | 2.30 | 3.00 |
| 9 | 2.70 | 3.60 | 4.50 | 5.00 | 4.60 | 3.70 | 3.00 | 3.50 | 2.60 | 2.20 | 2.30 | 2.90 |
| 10 | 2.60 | 3.20 | 4.00 | 4.50 | 3.90 | 3.00 | 2.80 | 3.10 | 2.50 | 2.20 | 2.30 | 2.80 |
| 11 | 2.60 | 3.30 | 4.00 | 4.00 | 3.70 | 2.90 | 2.60 | 4.00 | 2.60 | 2.20 | 2.30 | 2.80 |
| 12 | 2.60 | 3.30 | 3.80 | 3.80 | 3.40 | 3.00 | 3.10 | 3.80 | 2.60 | 2.20 | 2.30 | 2.80 |
| 13 | 2.50 | 3.10 | 3.30 | 3.70 | 3.40 | 2.90 | 2.20 | 3.40 | 2.50 | 2.20 | 2.40 | 2.70 |
| 14 | 2.50 | 3.00 | 4.40 | 3.60 | 3.30 | 2.70 | 2.70 | 2.90 | 2.50 | 2.20 | 2.40 | 2.60 |
| 15 | 2.70 | 3.30 | 4.00 | 3.60 | 3.30 | 2.70 | 2.60 | 3.90 | 2.40 | 2.20 | 2.40 | 3.00 |
| 16 | 2.80 | 3.10 | 3.70 | 3.50 | 3.10 | 2.70 | 2.40 | 3.10 | 2.30 | 2.20 | 2.40 | 2.90 |
| 17 | 4.00 | 3.00 | 3.70 | 3.40 | 3.10 | 2.70 | 2.60 | 2.90 | 2.30 | 2.20 | 2.40 | 2.80 |
| 18 | 3.20 | 3.00 | 3.70 | 3.50 | 3.10 | 2.70 | 2.60 | 2.70 | 2.30 | 2.20 | 2.30 | 2.70 |
| 19 | 3.80 | 3.00 | 3.60 | 3.50 | 3.10 | 2.60 | 2.50 | 2.70 | 2.30 | 2.20 | 2.30 | 2.70 |
| 20 | 3.00 | 4.80 | 3.40 | 3.50 | 3.10 | 2.70 | 2.40 | 2.70 | 2.30 | 2.20 | 2.30 | 2.70 |
| 21 | 3.00 | 3.80 | 3.30 | 3.40 | 3.00 | 2.90 | 2.40 | 2.70 | 2.20 | 2.20 | 2.30 | 2.70 |
| 22 | 3.00 | 5.60 | 5.40 | 3.40 | 3.00 | 3.00 | 4.20 | 2.70 | 2.20 | 2.20 | 2.30 | 2.60 |
| 23 | 5.00 | 5.00 | 6.70 | 3.40 | 3.00 | 2.80 | 2.80 | 2.60 | 2.20 | 2.20 | 2.30 | 2.50 |
| 24 | 4.00 | 4.30 | 6.40 | 3.30 | 2.90 | 2.70 | 2.60 | 3.50 | 3.00 | 2.20 | 2.20 | 2.70 |
| 25 | 3.80 | 3.80 | 5.20 | 3.30 | 3.00 | 2.70 | 3.10 | 2.90 | 2.60 | 2.20 | 2.20 | 2.80 |
| 26 | 3.40 | 3.70 | 5.10 | 3.80 | 2.90 | 2.70 | 2.80 | 2.80 | 2.30 | 2.20 | 2.20 | 2.80 |
| 27 | 3.20 | 3.60 | 5.00 | 3.70 | 2.90 | 2.80 | 2.60 | 2.70 | 2.30 | 2.20 | 2.20 | 2.80 |
| 28 | 3.00 | 3.50 | 4.50 | 3.70 | 2.90 | 3.20 | 2.80 | 3.20 | 2.30 | 2.20 | 2.20 | 4.70 |
| 29 | 3.00 | 3.30 | 4.10 | 3.40 | 2.90 | 4.60 | 2.60 | 2.70 | 2.30 | 2.20 | 2.20 | 3.40 |
| 30 | 3.00 | ------- | 4.00 | 3.40 | 5.40 | 3.20 | 2.60 | 2.70 | 2.30 | 2.20 | 3.00 | 3.10 |
| 31 | 2.80 | ------- | 3.90 | ------- | 3.80 | ------- | 2.60 | 2.70 | ------- | 2.20 | ------ | 3.00 |

DAILY GAGE HEIGHT, IN FEET, OF NOTTELY RIVER AT RANGER, N. C., FOR 1905.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 2.90 | 3.70 | 3.30 | 3.90 | 3.50 | 3.90 | 2.70 | 3.40 | 2.30 | 2.60 | 2.60 |
| 2 | 2.90 | 2.90 | 3.60 | 3.30 | 3.80 | 3.30 | 4.10 | 2.70 | 3.10 | 2.30 | 2.60 | 2.70 |
| 3 | 3.50 | 2.90 | 3.60 | 3.30 | 3.70 | 3.50 | 3.60 | 2.70 | 3.00 | 2.80 | 2.70 | 11.80 |
| 4 | 3.10 | 3.00 | 3.60 | 3.20 | 3.60 | 3.40 | 3.40 | 2.70 | 3.00 | 3.00 | 2.70 | 4.80 |
| 5 | 3.10 | 2.90 | 3.60 | 3.40 | 3.50 | 3.30 | 3.10 | 2.70 | 2.90 | 3.00 | 2.70 | 3.20 |
| 6 | 3.10 | 4.00 | 3.50 | 3.50 | 5.80 | 3.20 | 4.20 | 2.60 | 2.90 | 3.00 | 2.60 | 2.90 |
| 7 | 3.00 | 3.90 | 3.50 | 3.60 | 5.60 | 3.20 | 4.10 | 2.80 | 2.80 | 2.90 | 2.60 | 2.70 |
| 8 | 3.50 | 5.40 | 3.50 | 3.50 | 5.20 | 3.20 | 3.90 | 2.70 | 2.80 | 2.50 | 2.60 | 9.90 |
| 9 | 3.10 | 10.20 | 3.40 | 3.50 | 4.90 | 3.10 | 3.10 | 3.10 | 2.60 | 2.50 | 2.60 | 7.20 |
| 10 | 3.00 | 5.20 | 4.70 | 3.40 | 4.20 | 3.00 | 3.00 | 3.90 | 2.40 | 2.40 | 2.60 | 5.80 |
| 11 | 2.90 | 4.30 | 4.10 | 3.40 | 4.00 | 3.00 | 4.50 | 3.90 | 2.40 | 6.60 | 2.60 | 4.20 |
| 12 | 11.40 | 4.20 | 3.80 | 3.80 | 3.80 | 3.00 | 9.00 | 4.00 | 2.60 | 3.80 | 2.60 | 4.00 |
| 13 | 7.20 | 5.90 | 3.90 | 3.70 | 3.70 | 3.00 | 5.00 | 4.20 | 2.50 | 3.20 | 2.50 | 4.00 |
| 14 | 5.30 | 4.60 | 3.80 | 3.60 | 3.50 | 3.00 | 4.10 | 3.90 | 2.50 | 2.80 | 2.50 | 3.90 |
| 15 | 5.10 | 4.20 | 3.50 | 3.50 | 3.50 | 3.10 | 3.90 | 3.40 | 2.40 | 2.50 | 2.50 | 3.90 |
| 16 | 4.50 | 4.00 | 3.50 | 3.90 | 6.60 | 3.10 | 3.30 | 3.30 | 2.40 | 2.50 | 2.40 | 3.40 |
| 17 | 4.50 | 3.80 | 3.50 | 3.50 | 4.90 | 3.20 | 3.50 | 3.30 | 2.40 | 2.50 | 2.40 | 3.50 |
| 18 | 3.40 | 3.60 | 3.40 | 3.40 | 4.20 | 3.00 | 3.30 | 3.20 | 2.40 | 2.60 | 2.30 | 3.50 |
| 19 | 3.30 | 3.70 | 3.40 | 3.40 | 3.90 | 3.30 | 3.20 | 3.00 | 2.40 | 2.60 | 2.30 | 3.40 |
| 20 | 3.30 | 4.00 | 3.50 | 3.40 | 3.80 | 3.40 | 3.40 | 3.00 | 2.30 | 2.60 | 2.30 | 4.60 |
| 21 | 3.30 | 7.80 | 7.50 | 3.40 | 3.60 | 4.00 | 3.30 | 2.90 | 2.30 | 2.60 | 2.30 | 5.90 |
| 22 | 3.20 | 5.20 | 4.80 | 3.50 | 3.40 | 3.90 | 3.20 | 2.80 | 2.30 | 2.60 | 2.40 | 5.10 |
| 23 | 3.20 | 5.00 | 4.40 | 3.40 | 5.30 | 5.00 | 3.00 | 2.80 | 2.30 | 2.50 | 2.40 | 5.00 |
| 24 | 3.10 | 4.70 | 4.20 | 3.30 | 5.00 | 3.60 | 3.00 | 2.80 | 2.40 | 2.50 | 2.40 | 5.40 |
| 25 | 3.00 | 4.60 | 3.70 | 3.30 | 4.70 | 3.40 | 2.90 | 2.70 | 2.40 | 2.50 | 2.30 | 5.20 |
| 26 | 3.00 | 4.40 | 3.60 | 3.40 | 4.30 | 3.40 | 2.80 | 2.60 | 2.40 | 3.20 | 2.40 | 4.90 |
| 27 | 3.00 | 3.90 | 3.60 | 4.40 | 4.00 | 3.30 | 2.70 | 2.60 | 2.30 | 2.80 | 2.50 | 4.70 |
| 28 | 2.90 | 3.80 | 3.50 | 3.80 | 3.90 | 3.30 | 2.80 | 2.70 | 2.30 | 2.70 | 2.50 | 4.60 |
| 29 | 3.40 | ..... | 3.40 | 3.80 | 3.80 | 3.40 | 3.00 | 2.70 | 2.30 | 2.70 | 2.70 | 4.20 |
| 30 | 3.10 | ..... | 3.40 | 4.60 | 3.60 | 3.20 | 3.00 | 2.60 | 2.30 | 2.60 | 2.70 | 4.00 |
| 31 | 2.90 | ..... | 3.40 | ..... | 4.00 | ..... | 2.80 | 2.60 | ..... | 2.60 | ..... | 3.50 |

RATING TABLE FOR NOTTELY RIVER AT RANGER, N. C., FOR 1901–1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.4 | 155 | 5.2 | 920 | 8.0 | 1,760 | 12.0 | 2,960 |
| 2.6 | 190 | 5.4 | 980 | 8.2 | 1,820 | 12.5 | 3,110 |
| 2.8 | 229 | 5.6 | 1,040 | 8.4 | 1,880 | 13.0 | 3,260 |
| 3.0 | 272 | 5.8 | 1,100 | 8.6 | 1,940 | 13.5 | 3,410 |
| 3.2 | 322 | 6.0 | 1,160 | 8.8 | 2,000 | 14.0 | 3,560 |
| 3.4 | 380 | 6.2 | 1,220 | 9.0 | 2,060 | 14.5 | 3,710 |
| 3.6 | 440 | 6.4 | 1,280 | 9.2 | 2,120 | 15.0 | 3,860 |
| 3.8 | 500 | 6.6 | 1,340 | 9.4 | 2,180 | 15.5 | 4,010 |
| 4.0 | 560 | 6.8 | 1,400 | 9.6 | 2,240 | 16.0 | 4,160 |
| 4.2 | 620 | 7.0 | 1,460 | 9.8 | 2,300 | 17.0 | 4,460 |
| 4.4 | 680 | 7.2 | 1,520 | 10.0 | 2,360 | 18.0 | 4,760 |
| 4.6 | 740 | 7.4 | 1,580 | 10.5 | 2,510 | 19.0 | 5,060 |
| 4.8 | 800 | 7.6 | 1,640 | 11.0 | 2,660 | 20.0 | 5,360 |
| 5.0 | 860 | 7.8 | 1,700 | 11.5 | 2,910 | 21.0 | 5,660 |

RATING TABLE FOR NOTTELY RIVER AT RANGER, N. C., FOR 1904 AND 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.2 | 101 | 3.1 | 295 | 4.0 | 560 | 4.9 | 848 |
| 2.3 | 120 | 3.2 | 320 | 4.1 | 592 | 5.0 | 880 |
| 2.4 | 141 | 3.3 | 346 | 4.2 | 624 | 5.2 | 944 |
| 2.5 | 162 | 3.4 | 373 | 4.3 | 656 | 5.4 | 1,008 |
| 2.6 | 184 | 3.5 | 402 | 4.4 | 688 | 5.6 | 1,072 |
| 2.7 | 206 | 3.6 | 432 | 4.5 | 720 | 5.8 | 1,136 |
| 2.8 | 228 | 3.7 | 464 | 4.6 | 752 | 6.0 | 1,200 |
| 2.9 | 250 | 3.8 | 496 | 4.7 | 784 | 7.0 | 1,520 |
| 3.0 | 272 | 3.9 | 528 | 4.8 | 816 | | |

NOTE.—The above table is based on 22 discharge measurements made during 1901–1905. It is well defined between gage heights 2.25 feet and 3.5 feet. The table has been extended beyond these limits. Above gage height 3.6 feet the rating curve is a tangent, the difference being 32 per tenth.

ESTIMATED MONTHLY DISCHARGE OF NOTTELY RIVER AT RANGER, N. C.

[Drainage area, 272 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1901. | | | | | |
| February 16-28 | ----- | --- | 514 | 1.89 | 0.91 |
| March | 3,410 | 440 | 774 | 2.85 | 3.29 |
| April | 2,000 | 620 | 956 | 3.51 | 3.92 |
| May | 3,860 | 410 | 894 | 3.29 | 3.79 |
| June | 1,460 | 530 | 790 | 2.90 | 3.24 |
| July | 2,300 | 380 | 639 | 2.35 | 2.71 |
| August | 4,100 | 290 | 1,486 | 5.46 | 6.29 |
| September | 2,660 | 530 | 823 | 3.03 | 3.38 |
| October | 590 | 350 | 463 | 1.70 | 1.96 |
| November | 560 | 350 | 386 | 1.42 | 1.58 |
| December | 5,360 | 380 | 927 | 3.41 | 3.93 |
| 1902. | | | | | |
| January | 1,250 | 272 | 631 | 2.32 | 2.67 |
| February | 5,660 | 560 | 1,006 | 3.70 | 3.85 |
| March | 3,500 | 740 | 1,095 | 4.03 | 4.64 |
| April | 890 | 560 | 711 | 2.61 | 2.91 |
| May | 770 | 350 | 475 | 1.75 | 2.02 |
| June | 500 | 272 | 322 | 1.18 | 1.32 |
| July | 800 | 209 | 307 | 1.13 | 1.30 |
| August | 500 | 155 | 219 | .81 | .93 |
| September | 380 | 172 | 237 | .87 | .97 |
| October | 410 | 148 | 221 | .81 | .93 |
| November | 950 | 148 | 295 | 1.08 | 1.20 |
| December | 1,220 | 272 | 576 | 2.12 | 2.44 |
| The year | 5,660 | 148 | 508 | 1.87 | 25.18 |

ESTIMATED MONTHLY DISCHARGE OF NOTTELY RIVER AT RANGER, N. C.—*Continued.*

[Drainage area, 272 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| January | 800 | 272 | 433 | 1.59 | 1.83 |
| February | 4,610 | 322 | 1,095 | 4.03 | 4.20 |
| March | 3,800 | 770 | 1,289 | 4.74 | 5.46 |
| April | 1,940 | 650 | 1,028 | 3.78 | 4.22 |
| May | 1,070 | 410 | 572 | 2.10 | 2.42 |
| June | 1,610 | 410 | 810 | 2.98 | 3.32 |
| July | 1,100 | 272 | 503 | 1.85 | 2.13 |
| August | 1,460 | 229 | 389 | 1.43 | 1.65 |
| September | 560 | 190 | 238 | .88 | .98 |
| October | 560 | 172 | 212 | .78 | .90 |
| November | 560 | 172 | 232 | .85 | .95 |
| December | 500 | 172 | 254 | .93 | 1.07 |
| The year | 4,610 | 172 | 588 | 2.16 | 29.13 |
| 1904. | | | | | |
| January | 880 | 162 | 293 | 1.08 | 1.24 |
| February | 1,072 | 250 | 423 | 1.56 | 1.68 |
| March | 1,936 | 320 | 656 | 2.41 | 2.78 |
| April | 1,072 | 346 | 472 | 1.74 | 1.94 |
| May | 1,008 | 250 | 362 | 1.33 | 1.53 |
| June | 1,616 | 184 | 334 | 1.23 | 1.37 |
| July | 624 | 101 | 210 | .772 | .890 |
| August | 880 | 184 | 310 | 1.14 | 1.31 |
| September | 592 | 101 | 174 | .640 | .714 |
| October | 120 | 101 | 103 | .379 | .437 |
| November | 272 | 101 | 124 | .456 | .509 |
| December | 784 | 141 | 264 | .971 | 1.12 |
| The year | 1,936 | 101 | 310 | 1.14 | 15.52 |
| 1905. | | | | | |
| January | 2,992 | 250 | 501 | 1.84 | 2.12 |
| February | 2,544 | 250 | 716 | 2.63 | 2.74 |
| March | 1,680 | 373 | 506 | 1.86 | 2.14 |
| April | 752 | 320 | 420 | 1.54 | 1.72 |
| May | 1,392 | 373 | 640 | 2.35 | 2.71 |
| June | 880 | 272 | 364 | 1.34 | 1.50 |
| July | 2,160 | 206 | 455 | 1.67 | 1.92 |
| August | 624 | 184 | 288 | 1.06 | 1.22 |
| September | 373 | 120 | 174 | .640 | .714 |
| October | 1,392 | 120 | 247 | .908 | 1.05 |
| November | 206 | 120 | 165 | .607 | .677 |
| December | 3,056 | 184 | 780 | 2.87 | 3.31 |
| The year | 3,056 | 120 | 438 | 1.61 | 21.82 |

VALLEY RIVER AT TOMOTLA, N. C.

This station was established June 29, 1904, by M. R. Hall. It is located at a footbridge about 250 feet below a public-road ford at Tomotla, N. C., and 5 miles above Murphy, N. C.

The channel is straight for about 500 feet above and 1,000 feet below the station. The current is moderately swift. Both banks are high and

rocky and are not liable to overflow. The bed of the stream is composed of rock, but there is a fairly smooth and permanent section. There is but one channel at all stages.

Discharge measurements are made from the single-span footbridge, the floor of which is 10 to 15 feet above low water. The initial point for soundings is the upstream edge of the abutment, next to the water on the right bank. The gage is at the right end of the footbridge. The lower 5.4 feet consists of a sloping section bolted to solid rock. The upper end is vertical and is fastened to the bridge abutment. A bench mark, consisting of a circle cut in solid rock under the right bank end of the footbridge, has an elevation of 4.5 feet above the zero of the gage.

Discharge Measurements of Valley River at Tomotla, N. C., in 1904–1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Dec. 15 | M. R. Hall | 55 | 101 | ---- | 1.10 | 69 |
| 1905. | | | | | | |
| Apr. 17 | Olin P. Hall | 58 | 150 | ---- | 1.79 | 204 |
| June 16 | M. R. Hall | 55 | 125 | ---- | 1.42 | 125 |
| June 16 | O. P. Hall | 56 | 125 | ---- | 1.42 | 118 |
| Oct. 13 | ----do | 55 | 110 | ---- | 1.20 | 78 |
| 1906. | | | | | | |
| Feb. -- | O. P. Hall | 59 | 154 | ---- | 1.75 | 217 |
| Apr. 12 | M. R. Hall | 60 | 195 | ---- | 2.42 | 426 |
| Apr. 12 | O. P. Hall | 60 | 195 | ---- | 2.43 | 423 |
| June 8 | ----do | 58 | 140 | ---- | 1.54 | 175 |
| Nov. 5 | ----do | 58 | 138 | ---- | 1.57 | 171 |
| 1907. | | | | | | |
| May 18 | F. A. Murray | 58 | 145 | 1.57 | 1.89 | 228 |
| Aug. 20 | ----do | 56 | 118 | 1.11 | 1.38 | 131 |
| Aug. 20 | F. P. Thomas | 55 | 118 | 1.39 | 1.39 | 163 |
| Oct. 15 | Olin P. Hall | 56 | 115 | .97 | 1.23 | 111 |

Daily Gage Height, in Feet, of Valley River at Tomotla, N. C., for 1904.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.10 | 1.30 | 1.10 | 0.90 | 0.70 | 1.70 | 17 | 1.00 | 1.40 | 0.95 | 0.80 | 0.90 | 1.30 |
| 2 | 1.00 | 1.10 | 1.10 | .90 | .70 | 1.70 | 18 | 1.00 | 1.30 | .95 | .80 | .90 | 1.20 |
| 3 | .95 | 1.10 | 1.10 | .90 | .90 | 2.40 | 19 | .95 | 1.20 | .95 | .75 | .90 | 1.20 |
| 4 | 1.00 | 1.10 | 1.10 | .90 | .90 | 1.60 | 20 | .95 | 1.20 | .95 | .75 | 1.00 | 1.20 |
| 5 | 1.20 | 1.10 | 1.10 | .90 | 1.00 | 2.10 | 21 | 1.00 | 1.20 | .95 | .75 | 1.00 | 1.20 |
| 6 | 1.00 | 1.40 | 1.10 | .90 | 1.00 | 2.00 | 22 | 1.40 | 1.20 | .90 | .75 | 1.00 | 1.20 |
| 7 | 1.00 | 1.10 | 1.10 | .90 | .90 | 1.80 | 23 | 1.10 | 2.00 | .90 | .75 | 1.00 | 1.20 |
| 8 | 1.00 | 1.40 | 1.10 | .85 | .90 | 1.60 | 24 | 1.10 | 1.40 | .90 | .75 | 1.00 | 1.90 |
| 9 | 1.30 | 1.20 | 1.00 | .85 | .90 | 1.60 | 25 | 1.10 | 1.30 | .90 | .75 | 1.00 | 1.60 |
| 10 | 1.10 | 1.20 | 1.00 | .85 | .90 | 1.60 | 26 | 1.10 | 1.30 | .90 | .75 | 1.00 | 1.50 |
| 11 | 1.00 | 1.20 | 1.00 | .85 | .90 | 1.60 | 27 | 1.00 | 1.30 | .90 | .75 | 1.00 | 2.20 |
| 12 | 1.20 | 1.10 | 1.00 | .85 | 1.00 | 1.50 | 28 | 1.20 | 1.30 | .90 | .70 | 1.00 | 2.60 |
| 13 | 1.00 | 1.10 | 1.00 | .80 | 1.00 | 1.50 | 29 | 1.00 | 1.20 | .90 | .70 | 1.00 | 2.00 |
| 14 | 1.00 | 1.10 | .95 | .80 | 1.00 | 1.40 | 30 | 1.00 | 1.20 | .90 | .70 | 2.30 | 1.60 |
| 15 | .95 | 4.00 | .95 | .80 | .90 | 1.30 | 31 | 1.00 | 1.10 | -------- | .70 | ------ | 1.60 |
| 16 | .95 | 2.00 | .95 | .80 | .90 | 1.20 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF VALLEY RIVER AT TOMOTLA, N. C., FOR 1905-1906.

| 1905. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.40 | 1.30 | 2.10 | 1.85 | 2.45 | 1.75 | 2.30 | 1.40 | 1.50 | 1.05 | 1.15 | 1.45 |
| 2 | 1.40 | 1.40 | 2.10 | 1.85 | 2.25 | 1.65 | 2.20 | 1.40 | 1.40 | 1.05 | 1.05 | 1.60 |
| 3 | 1.40 | 1.40 | 2.00 | 1.85 | 2.05 | 1.65 | 1.80 | 1.30 | 1.40 | 1.55 | 1.05 | 7.75 |
| 4 | 1.40 | 1.50 | 1.90 | 1.75 | 1.95 | 1.55 | 1.80 | 1.30 | 1.40 | 1.35 | 1.05 | 3.55 |
| 5 | 1.50 | 1.70 | 1.90 | 1.75 | 1.85 | 1.55 | 1.60 | 1.30 | 1.40 | 1.25 | 1.05 | 2.65 |
| 6 | 1.90 | 2.40 | 1.90 | 1.85 | 1.85 | 1.45 | 2.00 | 1.30 | 1.30 | 1.15 | 1.05 | 2.35 |
| 7 | 1.90 | 2.10 | 1.80 | 1.85 | 2.15 | 1.45 | 1.80 | 1.40 | 1.30 | 1.15 | 1.25 | 1.95 |
| 8 | 1.70 | 3.10 | 1.80 | 2.05 | 2.05 | 1.45 | 1.60 | 1.80 | 1.30 | 1.15 | 1.15 | 3.35 |
| 9 | 1.50 | 7.90 | 2.60 | 2.35 | 1.95 | 1.35 | 1.60 | 1.50 | 1.30 | 1.15 | 1.15 | 4.55 |
| 10 | 1.60 | 3.70 | 2.80 | 2.05 | 1.95 | 1.35 | 1.80 | 2.00 | 1.30 | 1.35 | 1.15 | 2.75 |
| 11 | 1.80 | 2.90 | 2.50 | 1.85 | 1.85 | 1.35 | 2.10 | 1.80 | 1.30 | 2.55 | 1.15 | 2.45 |
| 12 | 7.50 | 2.90 | 2.30 | 2.45 | 1.85 | 1.25 | 9.60 | 2.30 | 1.20 | 1.75 | 1.15 | 2.35 |
| 13 | 3.70 | 3.90 | 2.20 | 2.05 | 1.85 | 1.25 | 4.20 | 2.60 | 1.20 | 1.35 | 1.15 | 2.35 |
| 14 | 2.70 | 3.30 | 2.10 | 1.95 | 1.85 | 1.35 | 2.60 | 3.20 | 1.20 | 1.15 | 1.05 | 2.25 |
| 15 | 2.50 | 2.70 | 2.00 | 1.85 | 2.15 | 1.35 | 2.40 | 2.10 | 1.20 | 1.15 | 1.05 | 2.35 |
| 16 | 2.10 | 2.60 | 2.00 | 2.15 | 3.15 | 1.35 | 2.20 | 2.80 | 1.20 | 1.15 | 1.05 | 2.35 |
| 17 | 1.90 | 2.40 | 1.90 | 1.85 | 2.45 | 1.35 | 2.40 | 2.20 | 1.20 | 1.15 | 1.05 | 2.25 |
| 18 | 1.70 | 2.20 | 1.85 | 1.85 | 2.25 | 1.35 | 2.20 | 1.80 | 1.20 | 1.05 | 1.05 | 2.15 |
| 19 | 1.70 | 2.70 | 1.80 | 1.85 | 2.05 | 1.35 | 2.10 | 1.60 | 1.20 | 1.25 | 1.15 | 2.15 |
| 20 | 1.60 | 7.60 | 2.20 | 1.75 | 1.95 | 1.35 | 2.00 | 1.60 | 1.20 | 1.15 | 1.55 | 2.15 |
| 21 | 1.60 | 5.40 | 3.40 | 1.75 | 2.05 | 1.45 | 1.80 | 1.50 | 1.10 | 1.15 | 1.35 | 2.75 |
| 22 | 1.60 | 3.90 | 2.50 | 1.95 | 2.05 | 1.45 | 1.80 | 1.60 | 1.10 | 1.15 | 1.25 | 2.35 |
| 23 | 1.50 | 3.10 | 2.20 | 1.85 | 2.35 | 1.65 | 1.70 | 1.80 | 1.10 | 1.15 | 1.15 | 3.75 |
| 24 | 1.40 | 2.90 | 2.30 | 1.85 | 2.35 | 1.45 | 1.70 | 2.90 | 1.10 | 1.15 | 1.15 | 3.55 |
| 25 | 1.30 | 2.70 | 2.30 | 1.85 | 2.05 | 1.35 | 1.70 | 1.80 | 1.10 | 1.15 | 1.45 | 2.75 |
| 26 | 1.20 | 2.50 | 2.10 | 2.05 | 1.95 | 1.45 | 1.60 | 1.70 | 1.10 | 1.85 | 1.35 | 2.35 |
| 27 | 1.10 | 2.30 | 2.10 | 1.95 | 1.85 | 1.45 | 1.60 | 1.60 | 1.10 | 1.55 | 1.25 | 2.25 |
| 28 | 1.10 | 2.20 | 2.00 | 1.85 | 1.85 | 1.45 | 1.50 | 1.60 | 1.00 | 1.25 | 1.35 | 2.15 |
| 29 | 1.10 | ..... | 2.30 | 2.85 | 1.85 | 2.85 | 1.50 | 1.50 | 1.10 | 1.15 | 1.75 | 2.15 |
| 30 | 1.20 | ..... | 2.10 | 3.15 | 1.85 | 2.85 | 1.50 | 1.50 | 1.10 | 1.15 | 1.65 | 2.05 |
| 31 | 1.40 | ..... | 1.90 | ..... | 1.75 | ..... | 1.50 | 1.40 | ..... | 1.15 | ..... | 2.05 |
| 1906. | | | | | | | | | | | | |
| 1 | 1.85 | 2.25 | 1.85 | 2.40 | 1.95 | 1.35 | 1.70 | 2.10 | 1.90 | 3.00 | 1.70 | 2.10 |
| 2 | 1.95 | 2.15 | 1.95 | 2.20 | 1.90 | 2.50 | 1.70 | 3.20 | 1.80 | 3.00 | 1.70 | 2.10 |
| 3 | 4.60 | 2.15 | 3.20 | 2.10 | 1.85 | 1.50 | 1.65 | 2.60 | 1.80 | 3.00 | 1.70 | 2.00 |
| 4 | 4.80 | 2.05 | 2.35 | 2.30 | 2.30 | 1.50 | 1.60 | 2.40 | 1.80 | 2.80 | 1.65 | 2.00 |
| 5 | 3.10 | 2.05 | 2.15 | 2.80 | 2.00 | 1.40 | 1.70 | 2.10 | 1.75 | 3.00 | 1.65 | 2.10 |
| 6 | 2.75 | 2.05 | 2.05 | 2.40 | 2.00 | 1.40 | 1.70 | 2.20 | 2.90 | 6.00 | 1.60 | 2.80 |
| 7 | 2.45 | 1.95 | 2.05 | 2.10 | 2.00 | 1.35 | 1.90 | 2.30 | 2.60 | 4.00 | 1.55 | 2.40 |
| 8 | 2.25 | 1.95 | 2.25 | 2.20 | 1.90 | 1.30 | 1.70 | 2.10 | 2.10 | 3.40 | 1.55 | 2.10 |
| 9 | 2.15 | 1.85 | 2.05 | 4.60 | 1.90 | 1.30 | 1.60 | 2.10 | 2.00 | 3.00 | 1.50 | 2.10 |
| 10 | 2.15 | 1.85 | 1.95 | 3.40 | 1.85 | 1.25 | 1.60 | 2.00 | 1.90 | 2.60 | 1.50 | 2.80 |
| 11 | 2.15 | 1.85 | 1.85 | 2.80 | 1.80 | 1.25 | 1.55 | 2.00 | 1.80 | 2.40 | 1.50 | 2.60 |
| 12 | 2.35 | 1.85 | 1.85 | 2.60 | 1.80 | 2.00 | 1.55 | 2.00 | 1.75 | 2.20 | 1.60 | 2.40 |
| 13 | 2.25 | 1.75 | 1.95 | 2.40 | 1.75 | 2.00 | 1.50 | 2.00 | 1.70 | 2.10 | 1.60 | 2.30 |
| 14 | 2.25 | 1.75 | 2.45 | 2.40 | 1.75 | 2.50 | 4.80 | 2.00 | 1.60 | 2.05 | 1.70 | 2.20 |
| 15 | 2.25 | 1.75 | 3.80 | 2.40 | 1.70 | 4.40 | 4.00 | 2.10 | 1.50 | 2.00 | 1.80 | 2.30 |
| 16 | 2.25 | 1.65 | 2.85 | 2.30 | 1.65 | 3.20 | 3.00 | 1.90 | 1.60 | 2.00 | 1.80 | 2.50 |
| 17 | 2.35 | 1.65 | 2.45 | 2.30 | 1.60 | 3.00 | 3.60 | 1.90 | 2.60 | 2.10 | 1.80 | 4.10 |
| 18 | 2.45 | 1.65 | 2.25 | 2 25 | 1.55 | 2.40 | 4.50 | 1.80 | 2.40 | 2.80 | 4.50 | 3.20 |
| 19 | 2.35 | 1.65 | 3.40 | 2.25 | 1.55 | 2.20 | 3.30 | 1.90 | 2.00 | 2.40 | 17.30 | 3.60 |
| 20 | 2.25 | 1.75 | 3.10 | 2.20 | 1.50 | 2.00 | 3.00 | 2.10 | 2.10 | 2.20 | 6.00 | 3.00 |
| 21 | 2.25 | 2.25 | 2.65 | 2.20 | 1.50 | 2.50 | 2.40 | 2.00 | 2.30 | 2.10 | 4.00 | 2.90 |
| 22 | 2.35 | 1.95 | 2.45 | 2.10 | 1.45 | 2.00 | 2.20 | 1.90 | 2.30 | 2.00 | 3.60 | 2.80 |
| 23 | 5.60 | 1.75 | 2.25 | 2.05 | 1.45 | 2.00 | 2.20 | 1.80 | 3.20 | 2.00 | 3.20 | 2.60 |
| 24 | 4.20 | 1.75 | 2.15 | 2.05 | 1.40 | 3.00 | 2.10 | 1.80 | 2.80 | 1.90 | 3.00 | 2.60 |
| 25 | 3.40 | 1.65 | 2.05 | 2.00 | 1.40 | 2.40 | 2.00 | 1.75 | 2.40 | 1.90 | 2 90 | 2.50 |
| 26 | 2.65 | 1.65 | 2.05 | 2.00 | 1.60 | 2.00 | 1.90 | 1.80 | 2.30 | 1.80 | 2.80 | 2.50 |
| 27 | 2.65 | 1.85 | 2.15 | 2.00 | 1.50 | 1.90 | 2.40 | 3.00 | 2.40 | 1.80 | 2.70 | 2.80 |
| 28 | 2.45 | 1.85 | 2.45 | 2.30 | 1.45 | 1.80 | 2.00 | 2.60 | 2.60 | 1.75 | 2.60 | 4.00 |
| 29 | 2.45 | ..... | 2.45 | 2.10 | 1.45 | 1.80 | 1.80 | 2.20 | 2.80 | 1.75 | 2.50 | 4.00 |
| 30 | 2.35 | ..... | 3.80 | 2.00 | 1.40 | 1.60 | 2.50 | 2.00 | 5.00 | 1.70 | 2.40 | 3.60 |
| 31 | 2.25 | ..... | 3.40 | ..... | 1.40 | ..... | 2.20 | 1.90 | ..... | 1.70 | ..... | 3.80 |

DAILY GAGE HEIGHT, IN FEET, OF VALLEY RIVER AT TOMOTLA, N. C., FOR 1907-1908.

| 1907. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.60 | 3.00 | 3.30 | 2.10 | 1.90 | 3.40 | 1.90 | 1.50 | 1.30 | 1.60 | 1.20 | 1.60 |
| 2 | 3.20 | 2.90 | 4.00 | 2.10 | 1.90 | 3.20 | 1.75 | 1.40 | 1.35 | 1.50 | 1.55 | 1.60 |
| 3 | 3.10 | 2.80 | 3.80 | 1.80 | 1.80 | 2.40 | 1.70 | 1.40 | 1.40 | 1.45 | 1.35 | 1.55 |
| 4 | 3.00 | 2.60 | 3.70 | 1.80 | 2.00 | 2.00 | 1.65 | 1.30 | 1.40 | 1.40 | 1.30 | 1.50 |
| 5 | 3.00 | 4.10 | 3.70 | 1.70 | 1.90 | 1.80 | 1.60 | 1.80 | 1.35 | 1.70 | 1.20 | 1.50 |
| 6 | 2.80 | 3.80 | 3.00 | 2.50 | 1.80 | 1.80 | 1.60 | 1.45 | 1.30 | 1.40 | 1.20 | 1.50 |
| 7 | 2.70 | 3.60 | 2.80 | 2.50 | 2.30 | 1.70 | 1.55 | 1.40 | 1.30 | 1.40 | 1.20 | 1.40 |
| 8 | 2.65 | 3.20 | 2.50 | 2.00 | 2.00 | 2.00 | 1.50 | 1.30 | 1.30 | 1.60 | 1.20 | 1.60 |
| 9 | 2.60 | 3.00 | 2.80 | 2.00 | 1.90 | 1.90 | 1.50 | 1.25 | 1.30 | 1.40 | 1.20 | 2.45 |
| 10 | 2.55 | 2.70 | 3.50 | 1.90 | 1.90 | 1.80 | 1.40 | 1.20 | 1.25 | 1.30 | 2.75 | 2.00 |
| 11 | 2.50 | 2.60 | 3.40 | 2.00 | 3.50 | 1.90 | 1.55 | 1.20 | 1.45 | 1.30 | 2.55 | 1.80 |
| 12 | 2.50 | 2.50 | 3.30 | 1.90 | 2.50 | 2.40 | 2.10 | 1.20 | 1.25 | 1.30 | 2.00 | 1.80 |
| 13 | 2.40 | 2.40 | 3.00 | 1.80 | 2.00 | 2.20 | 2.60 | 1.25 | 1.20 | 1.25 | 1.70 | 1.75 |
| 14 | 2.40 | 2.30 | 2.80 | 1.80 | 1.90 | 1.80 | 1.90 | 1.35 | 1.10 | 1.20 | 1.60 | 2.55 |
| 15 | 2.35 | 2.10 | 2.40 | 2.00 | 2.50 | 1.80 | 1.85 | 1.65 | 1.10 | 1.20 | 1.50 | 2.40 |
| 16 | 2.30 | 2.00 | 2.30 | 1.90 | 2.30 | 1.80 | 1.65 | 1.60 | 1.10 | 1.20 | 1.50 | 2.15 |
| 17 | 2.40 | 2.00 | 2.20 | 1.90 | 2.00 | 1.70 | 1.60 | 1.70 | 1.10 | 1.20 | 1.50 | 2.10 |
| 18 | 2.40 | 1.95 | 2.15 | 1.80 | 1.90 | 1.70 | 1.65 | 1.80 | 1.10 | 1.20 | 1.65 | 2.00 |
| 19 | 2.35 | 1.90 | 2.10 | 1.90 | 1.90 | 1.80 | 1.60 | 1.55 | 1.10 | 1.20 | 1.55 | 1.90 |
| 20 | 2.70 | 1.90 | 2.10 | 1.90 | 1.80 | 1.80 | 1.60 | 1.40 | 1.10 | 1.20 | 1.50 | 1.80 |
| 21 | 2.60 | 1.90 | 2.00 | 2.00 | 1.80 | 1.70 | 1.55 | 1.40 | 1.20 | 1.15 | 1.90 | 1.70 |
| 22 | 2.55 | 2.00 | 2.00 | 2.00 | 1.70 | 1.70 | 1.50 | 1.90 | 2.00 | 1.10 | 1.90 | 1.70 |
| 23 | 2.50 | 2.00 | 2.00 | 3.00 | 1.70 | 2.00 | 1.70 | 2.05 | 4.00 | 1.10 | 3.40 | 2.35 |
| 24 | 2.50 | 2.10 | 1.95 | 2.90 | 1.70 | 1.90 | 1.40 | 1.85 | 2.10 | 1.20 | 3.50 | 2.20 |
| 25 | 2.45 | 2.20 | 1.90 | 2.80 | 1.70 | 2.00 | 1.65 | 1.60 | 1.35 | 1.10 | 2.65 | 2.10 |
| 26 | 2.40 | 2.10 | 2.10 | 2.30 | 2.50 | 1.80 | 1.60 | 1.40 | 1.30 | 1.15 | 2.05 | 2.00 |
| 27 | 2.40 | 2.00 | 1.90 | 2.20 | 2.00 | 1.80 | 1.50 | 1.35 | 1.30 | 1.45 | 1.95 | 1.90 |
| 28 | 2.50 | 2.20 | 1.85 | 2.10 | 1.90 | 1.70 | 1.45 | 1.40 | 1.85 | 1.50 | 1.85 | 1.90 |
| 29 | 2.55 | ..... | 1.80 | 2.00 | 1.80 | 2.50 | 1.70 | 1.40 | 2.15 | 1.20 | 1.80 | 2.00 |
| 30 | 2.60 | ..... | 1.75 | 2.00 | 1.70 | 1.90 | 2.20 | 1.30 | 1.65 | 1.20 | 1.75 | 5.40 |
| 31 | 2.70 | ..... | 2.10 | ..... | 2.70 | ..... | 1.85 | 1.30 | ..... | 1.20 | ..... | 3.50 |

| 1908. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.85 | 3.20 | 2.10 | 2.10 | 2.05 | 1.55 | 1.20 | 1.15 | 1.20 | 0.90 |
| 2 | 2.45 | 2.55 | 2.20 | 2.05 | 2.00 | 1.50 | 1.20 | 1.20 | 1.20 | .90 |
| 3 | 2.25 | 2.35 | 2.25 | 2.00 | 1.95 | 1.50 | 1.35 | 1.20 | 1.25 | .90 |
| 4 | 3.00 | 2.15 | 2.25 | 1.95 | 1.90 | 1.95 | 1.85 | 1.25 | 1.30 | .90 |
| 5 | 3.60 | 2.10 | 2.25 | 2.10 | 2.00 | 1.65 | 1.60 | 1.30 | 1.75 | .90 |
| 6 | 2.95 | 2.25 | 2.10 | 2.05 | 1.90 | 1.60 | 1.70 | 1.35 | 1.55 | .90 |
| 7 | 2.75 | 2.10 | 2.05 | 2.10 | 2.85 | 1.60 | 1.45 | 1.90 | 1.00 | .90 |
| 8 | 2.50 | 2.00 | 2.00 | 1.85 | 2.35 | 1.60 | 2.05 | 1.40 | 1.00 | .90 |
| 9 | 2.30 | 2.00 | 2.00 | 1.80 | 2.15 | 1.50 | 1.65 | 1.25 | 1.00 | .95 |
| 10 | 2.20 | 2.20 | 2.00 | 1.80 | 2.05 | 1.45 | 2.20 | 1.20 | .90 | 1.35 |
| 11 | 3.00 | 2.20 | 3.20 | 1.80 | 1.95 | 1.40 | 1.65 | 1.25 | .90 | 1.00 |
| 12 | 4.00 | 2.20 | 2.70 | 1.70 | 1.85 | 1.50 | 1.55 | 1.20 | .90 | 1.00 |
| 13 | 2.80 | 2.20 | 2.50 | 1.70 | 1.80 | 1.60 | 1.50 | 1.10 | .90 | .90 |
| 14 | 2.55 | 2.30 | 2.45 | 1.70 | 1.80 | 1.60 | 1.40 | 1.10 | .90 | .90 |
| 15 | 2.65 | 5.90 | 2.30 | 2.45 | 1.70 | 1.50 | 1.45 | 1.10 | .90 | .90 |
| 16 | 2.55 | 3.40 | 2.15 | 2.45 | 1.70 | 1.50 | 1.45 | 1.10 | .90 | .90 |
| 17 | 2.55 | 2.95 | 2.05 | 2.75 | 1.70 | 1.50 | 1.45 | 1.25 | .90 | .90 |
| 18 | 2.40 | 2.60 | 2.05 | 2.55 | 1.80 | 1.95 | 1.30 | 1.10 | .90 | .90 |
| 19 | 2.30 | 2.60 | 3.20 | 2.50 | 2.00 | 1.65 | 1.30 | 1.05 | .90 | .90 |
| 20 | 2.20 | 2.45 | 2.50 | 2.25 | 1.80 | 1.60 | 1.25 | 1.00 | .90 | .90 |
| 21 | 2.15 | 2.30 | 2.50 | 2.15 | 1.65 | 1.40 | 1.20 | 1.10 | .90 | .90 |
| 22 | 2.15 | 2.20 | 2.50 | 2.05 | 1.60 | 1.30 | 1.20 | 1.75 | .90 | .90 |
| 23 | 2.10 | 2.10 | 4.80 | 2.00 | 1.60 | 1.30 | 1.20 | 2.05 | .90 | 1.40 |
| 24 | 2.05 | 2.10 | 5.40 | 1.90 | 1.70 | 1.30 | 1.25 | 1.80 | .90 | 1.15 |
| 25 | 1.90 | 2.10 | 4.60 | 3.30 | 1.85 | 1.30 | 1.25 | 1.35 | .90 | 1.00 |
| 26 | 1.95 | 2.25 | 3.40 | 2.85 | 1.85 | 1.30 | 1.20 | 1.90 | .90 | 1.00 |
| 27 | 2.05 | 2.10 | 2.60 | 2.60 | 1.85 | 1.30 | 1.20 | 1.80 | .90 | 1.40 |
| 28 | 1.90 | 2.00 | 2.40 | 2.30 | 1.70 | 1.30 | 1.25 | 1.30 | .90 | 1.40 |
| 29 | 1.90 | 2.00 | 2.30 | 2.15 | 1.60 | 1.20 | 1.30 | 1.25 | .90 | 1.25 |
| 30 | 1.85 | ..... | 2.30 | 2.25 | 1.65 | 1.20 | 1.20 | 1.20 | .90 | 1.10 |
| 31 | 2.00 | ..... | 2.20 | ..... | 1.60 | ..... | 1.20 | 1.20 | ..... | 1.00 |

RATING TABLE FOR VALLEY RIVER AT TOMOTLA, N. C., FROM JULY 1 TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.7 | 22 | 1.2 | 88 | 1.7 | 192 | 2.2 | 327 |
| .8 | 32 | 1.3 | 106 | 1.8 | 217 | 2.3 | 357 |
| .9 | 44 | 1.4 | 126 | 1.9 | 243 | 2.4 | 388 |
| 1.0 | 57 | 1.5 | 147 | 2.0 | 270 | 2.5 | 420 |
| 1.1 | 72 | 1.6 | 169 | 2.1 | 298 | 2.6 | 452 |

The above table is applicable only for open-channel conditions. It is based upon four discharge measurements made during 1904. It is fairly well defined between gage heights 0.70 foot and 1.75 feet. The table has been extended above gage height 1.75 feet to 2.60 feet.

RATING TABLE FOR VALLEY RIVER AT TOMOTLA, N. C., FOR 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.00 | 50 | 1.90 | 230 | 2.80 | 530 | 3.70 | 960 |
| 1.10 | 66 | 2.00 | 260 | 2.90 | 570 | 3.80 | 1,015 |
| 1.20 | 82 | 2.10 | 290 | 3.00 | 610 | 3.90 | 1,075 |
| 1.30 | 100 | 2.20 | 320 | 3.10 | 655 | 4.00 | 1,135 |
| 1.40 | 118 | 2.30 | 350 | 3.20 | 700 | 4.20 | 1,260 |
| 1.50 | 138 | 2.40 | 380 | 3.30 | 750 | 4.40 | 1,390 |
| 1.60 | 158 | 2.50 | 415 | 3.40 | 800 | 4.60 | 1,520 |
| 1.70 | 180 | 2.60 | 450 | 3.50 | 850 | 4.80 | 1,660 |
| 1.80 | 205 | 2.70 | 490 | 3.60 | 905 | 5.00 | 1,800 |

This table is applicable only for open-channel conditions. It is based on four discharge measurements made during 1905. It is well defined between gage heights 1.0 foot and 2.0 feet. Above gage height 4.6 feet the rating curve is a tangent, the difference being 70 per tenth.

RATING TABLE FOR VALLEY RIVER AT TOMOTLA, N. C., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.10 | 74 | 2.00 | 285 | 2.90 | 595 | ---- | ----- |
| 1.20 | 92 | 2.10 | 315 | 3.00 | 635 | 3.80 | 1,040 |
| 1.30 | 112 | 2.20 | 345 | 3.10 | 680 | 3.90 | 1,100 |
| 1.40 | 134 | 2.30 | 375 | 3.20 | 725 | 4.00 | 1,160 |
| 1.50 | 156 | 2.40 | 405 | 3.30 | 775 | 4.20 | 1,285 |
| 1.60 | 180 | 2.50 | 440 | 3.40 | 825 | 4.40 | 1,415 |
| 1.70 | 205 | 2.60 | 475 | 3.50 | 875 | 4.60 | 1,545 |
| 1.80 | 230 | 2.70 | 515 | 3.60 | 930 | 4.80 | 1,680 |
| 1.90 | 255 | 2.80 | 555 | 3.70 | 985 | 5.00 | 1,820 |

This table is applicable only for open-channel conditions. It is based on five discharge measurements made during 1906. It is well defined between gage heights 1.2 feet and 3.0 feet. Above gage height 4.7 feet the rating curve is a tangent, the difference being 70 per tenth.

ESTIMATED MONTHLY DISCHARGE OF VALLEY RIVER AT TOMOTLA, N. C., FOR 1904.

| Month. | Discharge in Second-feet. | | |
|---|---|---|---|
| | Maximum. | Minimum. | Mean. |
| July | 126 | 50 | 65.6 |
| August | 1,000 | 72 | 13.3 |
| September | 72 | 44 | 55.2 |
| October | 44 | 22 | 32.9 |
| November | 357 | 22 | 59.5 |
| December | 452 | 88 | 18.1 |

ESTIMATED MONTHLY DISCHARGE OF VALLEY RIVER AT TOMOTLA, N. C.—*Continued.*

[Drainage area, 106 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 3,550 | 66 | 302 | 2.85 | 3.29 |
| February | 3,830 | 100 | 766 | 7.23 | 7.53 |
| March | 800 | 205 | 314 | 2.96 | 3.41 |
| April | 678 | 192 | 265 | 2.50 | 2.79 |
| May | 678 | 192 | 282 | 2.66 | 3.07 |
| June | 550 | 91 | 154 | 1.45 | 1.62 |
| July | 5,020 | 138 | 420 | 3.96 | 4.56 |
| August | 700 | 100 | 222 | 2.09 | 2.41 |
| September | 138 | 50 | 86.4 | .815 | .91 |
| October | 432 | 58 | 102 | .962 | 1.11 |
| November | 192 | 58 | 85.2 | .804 | .90 |
| December | 3,720 | 128 | 559 | 5.27 | 6.08 |
| The year | 5,020 | 50 | 296 | 2.80 | 37.68 |
| 1906. | | | | | |
| January | 2,240 | 242 | 574 | 5.42 | 6.25 |
| February | 360 | 192 | 250 | 2.36 | 2.46 |
| March | 1,040 | 242 | 446 | 4.21 | 4.85 |
| April | 1,540 | 285 | 419 | 3.95 | 4.41 |
| May | 375 | 134 | 204 | 1.92 | 2.21 |
| June | 1,420 | 102 | 325 | 3.07 | 3.42 |
| July | 1,680 | 156 | 434 | 4.09 | 4.72 |
| August | 725 | 217 | 325 | 3.07 | 3.54 |
| September | 1,820 | 156 | 393 | 3.71 | 4.14 |
| October | 2,520 | 205 | 483 | 4.56 | 5.26 |
| November | 10,400 | 156 | 803 | 7.58 | 8.46 |
| December | 1,220 | 285 | 562 | 5.30 | 6.11 |
| The year | 10,400 | 102 | 435 | 4.10 | 55.83 |
| 1907. | | | | | |
| January | 930 | 375 | 490 | 4.62 | 5.33 |
| February | 1,220 | 255 | 468 | 4.42 | 4.60 |
| March | 1,160 | 218 | 511 | 4.82 | 5.56 |
| April | 635 | 205 | 316 | 2.98 | 3.32 |
| May | 875 | 205 | 302 | 2.85 | 3.29 |
| June | 825 | 205 | 294 | 2.77 | 3.09 |
| July | 475 | 134 | 205 | 1.93 | 2.22 |
| August | 300 | 92 | 153 | 1.44 | 1.66 |
| September | 1,160 | 74 | 167 | 1.58 | 1.76 |
| October | 205 | 74 | 114 | 1.08 | 1.24 |
| November | 875 | 92 | 252 | 2.38 | 2.66 |
| December | 2,100 | 134 | 338 | 3.19 | 3.68 |
| The year | 2,100 | 74 | 301 | 2.84 | 38.41 |

NOTE.—Values for 1905 and 1906 can be considered only fair, owing to discrepancies between the gage readings, probably due to daily fluctuations from stored water.

### TUSQUITEE CREEK NEAR HAYESVILLE, N. C.

This station was established on May 20, 1907. It is at the wagon bridge, about 3 miles northeast of Hayesville, and 2½ miles above the mouth of the creek, which is a tributary of the Hiwassee River.

The vertical gage is attached to the left bank bridge abutment.

Discharge measurements are made from the wooden wagon bridge. The current is somewhat rough, but is fairly good for measurements, and the bottom of the stream is rocky and will not be liable to change.

DISCHARGE MEASUREMENTS OF TUSQUITEE CREEK NEAR HAYESVILLE, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 20 | F. A. Murray | 34 | 66 | 1.73 | 1.50 | 114 |
| Aug. 21 | Frank P. Thomas | 37 | 70 | 2.16 | 1.73 | 151 |
| Aug. 21 | F. A. Murray | 35 | 65 | 2.21 | 1.72 | 144 |
| Oct. 14 | Olin P. Hall | 27 | 49 | 1.12 | 1.22 | 55 |

DAILY GAGE HEIGHT, IN FEET, OF TUSQUITEE CREEK NEAR HAYESVILLE, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---- | 3.00 | 1.40 | 1.50 | 1.30 | 1.60 | 1.20 | 1.45 |
| 2 | ---- | 2.50 | 1.40 | 1.40 | 1.30 | 1.50 | 1.95 | 1.40 |
| 3 | ---- | 2.00 | 1.40 | 1.40 | 1.35 | 1.45 | 1.50 | 1.40 |
| 4 | ---- | 1.85 | 1.35 | 1.30 | 1.35 | 1.45 | 1.40 | 1.35 |
| 5 | ---- | 1.80 | 1.30 | 1.30 | 1.30 | 1.50 | 1.35 | 1.35 |
| 6 | ---- | 1.70 | 1.35 | 1.50 | 1.25 | 1.40 | 1.35 | 1.35 |
| 7 | ---- | 1.70 | 1.30 | 1.30 | 1.25 | 1.40 | 1.30 | 1.35 |
| 8 | ---- | 2.00 | 1.30 | 1.30 | 1.25 | 1.40 | 1.30 | 1.35 |
| 9 | ---- | 1.80 | 1.35 | 1.30 | 1.30 | 1.35 | 1.25 | 1.40 |
| 10 | ---- | 1.70 | 1.30 | 1.30 | 1.65 | 1.30 | 2.25 | 2.90 |
| 11 | ---- | 1.70 | 1.40 | 1.25 | 1.40 | 1.30 | 1.70 | 2.10 |
| 12 | ---- | 1.65 | 1.50 | 1.40 | 1.25 | 1.25 | 1.60 | 1.80 |
| 13 | ---- | 1.60 | 2.00 | 1.30 | 1.20 | 1.25 | 1.50 | 1.50 |
| 14 | ---- | 1.60 | 1.50 | 1.40 | 1.20 | 1.25 | 1.45 | 1.60 |
| 15 | ---- | 1.50 | 1.50 | 1.30 | 1.20 | 1.20 | 1.40 | 1.60 |
| 16 | ---- | 1.50 | 1.50 | 1.80 | 1.20 | 1.20 | 1.35 | 1.60 |
| 17 | ---- | 1.50 | 1.50 | 1.60 | 1.20 | 1.20 | 1.35 | 1.55 |
| 18 | ---- | 1.50 | 1.45 | 2.10 | 1.20 | 1.20 | 1.65 | 1.50 |
| 19 | ---- | 1.50 | 1.60 | 1.70 | 1.20 | 1.20 | 1.45 | 1.50 |
| 20 | 1.50 | 1.55 | 1.55 | 1.60 | 1.15 | 1.15 | 1.40 | 1.50 |
| 21 | 1.50 | 1.50 | 1.40 | 1.80 | 1.15 | 1.15 | 1.50 | 1.45 |
| 22 | 1.50 | 1.50 | 1.40 | 2.00 | 2.85 | 1.15 | 1.70 | 1.45 |
| 23 | 1.40 | 1.40 | 1.40 | 1.85 | 2.40 | 1.20 | 1.90 | 1.70 |
| 24 | 1.40 | 1.45 | 1.35 | 1.75 | 1.55 | 1.20 | 2.20 | 1.70 |
| 25 | 1.50 | 1.45 | 1.30 | 1.70 | 1.40 | 1.20 | 1.90 | 1.65 |
| 26 | 2.60 | 1.55 | 1.30 | 1.60 | 1.35 | 1.20 | 1.80 | 1.60 |
| 27 | 1.85 | 1.40 | 1.35 | 1.50 | 1.30 | 1.55 | 1.70 | 1.60 |
| 28 | 1.70 | 1.40 | 1.35 | 1.50 | 2.50 | 1.35 | 1.60 | 1.70 |
| 29 | 1.60 | 1.50 | 3.40 | 1.40 | 2.10 | 1.30 | 1.55 | 1.60 |
| 30 | 1.65 | 1.45 | 2.00 | 1.35 | 1.75 | 1.25 | 1.50 | 3.00 |
| 31 | 2.40 | ---- | 1.60 | 1.30 | ---- | 1.20 | ---- | 2.20 |

DAILY GAGE HEIGHT, IN FEET, OF TUSQUITEE CREEK NEAR HAYESVILLE, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 1.85 | 1.60 | 1.80 | 1.80 | 1.75 | 1.25 | 1.15 | 1.25 | 1.10 |
| 2 | 1.85 | 1.75 | 1.80 | 1.75 | 1.75 | 1.65 | 1.70 | 1.15 | 1.20 | 1.00 |
| 3 | 1.75 | 1.65 | 1.70 | 1.70 | 1.70 | 1.60 | 1.40 | 1.10 | 1.15 | 1.00 |
| 4 | 2.35 | 1.60 | 1.70 | 1.70 | 1.65 | 1.70 | 1.50 | 1.10 | 1.15 | 1.00 |
| 5 | 2.30 | 1.60 | 1.70 | 1.65 | 1.65 | 2.05 | 1.50 | 1.20 | 1.15 | 1.00 |
| 6 | 2.10 | 1.70 | 1.65 | 1.70 | 1.70 | 1.80 | 1.45 | 1.60 | 1.50 | 1.00 |
| 7 | 2.00 | 1.60 | 1.65 | 1.65 | 2.10 | 1.70 | 1.40 | 1.20 | 1.35 | 1.00 |
| 8 | 1.85 | 1.60 | 1.60 | 1.60 | 1.95 | 1.60 | 1.40 | 1.25 | 1.30 | 1.00 |
| 9 | 1.80 | 1.55 | 1.60 | 1.60 | 1.85 | 1.60 | 1.40 | 1.30 | 1.25 | 1.20 |
| 10 | 1.80 | 1.70 | 1.60 | 1.60 | 1.80 | 1.55 | 1.95 | 1.20 | 1.20 | 1.20 |
| 11 | 1.70 | 1.65 | 2.30 | 1.55 | 1.75 | 1.55 | 1.55 | 1.20 | 1.20 | 1.15 |
| 12 | 2.30 | 1.65 | 2.25 | 1.50 | 1.70 | 1.50 | 1.45 | 1.20 | 1.15 | 1.10 |
| 13 | 2.10 | 1.70 | 2.00 | 1.50 | 1.65 | 1.50 | 1.40 | 1.10 | 1.15 | 1.10 |
| 14 | 2.00 | 2.20 | 1.90 | 1.50 | 1.60 | 1.80 | 1.35 | 1.10 | 1.15 | 1.10 |
| 15 | 1.90 | 2.80 | 1.80 | 2.00 | 1.60 | 1.55 | 1.35 | 1.10 | 1.10 | 1.10 |
| 16 | 1.90 | 2.30 | 1.75 | 1.80 | 1.55 | 1.50 | 1.35 | 1.10 | 1.10 | 1.10 |
| 17 | 1.85 | 2.25 | 1.70 | 1.75 | 1.50 | 1.45 | 1.35 | 1.10 | 1.10 | 1.05 |
| 18 | 1.80 | 2.00 | 1.70 | 1.75 | 2.15 | 1.40 | 1.30 | 1.15 | 1.10 | 1.05 |
| 19 | 1.80 | 1.90 | 1.65 | 1.95 | 1.80 | 1.40 | 1.50 | 1.50 | 1.05 | 1.00 |
| 20 | 1.75 | 1.80 | 2.15 | 1.80 | 1.70 | 1.40 | 1.40 | 1.20 | 1.05 | 1.00 |
| 21 | 1.70 | 1.80 | 2.10 | 1.75 | 1.65 | 1.40 | 1.30 | 1.60 | 1.10 | 1.00 |
| 22 | 1.70 | 1.75 | 1.80 | 1.70 | 1.60 | 1.35 | 1.25 | 1.65 | 1.10 | 1.00 |
| 23 | 1.70 | 1.70 | 3.70 | 1.65 | 1.55 | 1.35 | 1.25 | 1.60 | 1.10 | 1.40 |
| 24 | 1.60 | 1.60 | 3.40 | 1.60 | 1.50 | 1.35 | 1.20 | 1.50 | 1.10 | 1.20 |
| 25 | 1.60 | 1.60 | 3.60 | 3.10 | 1.90 | 1.35 | 1.20 | 1.80 | 1.05 | 1.15 |
| 26 | 1.75 | 1.70 | 2.30 | 2.20 | 1.70 | 1.30 | 1.20 | 1.55 | 1.05 | 1.10 |
| 27 | 1.80 | 1.65 | 2.10 | 2.10 | 1.65 | 1.30 | 1.20 | 1.50 | 1.15 | 1.10 |
| 28 | 1.65 | 1.60 | 2.00 | 2.00 | 1.70 | 1.30 | 1.60 | 1.35 | 1.15 | 1.25 |
| 29 | 1.60 | 1.60 | 1.90 | 1.90 | 3.55 | 1.30 | 1.25 | 1.30 | 1.10 | 1.50 |
| 30 | 1.60 | ..... | 1.85 | 1.85 | 2.30 | 1.25 | 1.20 | 1.30 | 1.10 | 1.20 |
| 31 | 1.55 | ..... | 1.80 | ..... | 1.85 | ..... | 1.20 | 1.25 | ..... | 1.10 |

RATING TABLE FOR TUSQUITEE CREEK NEAR HAYESVILLE, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 30 | 1.30 | 68 | 1.60 | 120 | 1.90 | 180 |
| 1.05 | 35 | 1.35 | 76 | 1.65 | 130 | 1.95 | 190 |
| 1.10 | 40 | 1.40 | 84 | 1.70 | 140 | 2.00 | 200 |
| 1.15 | 46 | 1.45 | 93 | 1.75 | 150 | | |
| 1.20 | 53 | 1.50 | 102 | 1.80 | 160 | | |
| 1.25 | 60 | 1.55 | 111 | 1.85 | 170 | | |

## LITTLE TENNESSEE RIVER AT McGHEE, TENN.

This station was established in 1904 by the United States Weather Bureau. It is located at the Louisville and Nashville Railroad bridge, about one-third of a mile south of McGhee Station, Tenn. During 1905 discharge measurements have been made by the Geological Survey, and gage-height records have been furnished by the Weather Bureau.

The channel is practically straight for 2,000 feet above the station and is only slightly curved for the same distance below. The section is about 530 feet wide at ordinary stages, but at low water the width is considerably less. The current is very swift even at low water and is somewhat broken at places, partly owing to temporary obstruction. It is fairly good for measuring purposes.

Discharge measurements are made from the new nine-span railway bridge, which has a total length of about 973 feet. Four truss spans are each 140 feet long and five girder spans are each 82.5 feet long, three of the latter being on the right bank and two on the left bank.

A standard chain gage, which is the property of the Weather Bureau, was located on the upstream side of the old bridge near the right bank, but during 1905 a new location of the railroad was made, requiring a new crossing of the river about 1,000 feet above the old one. The old bridge was taken down and the gage moved to the new bridge December 1, 1905, and set to agree with the old gage when the latter read 3.95 feet. The gage is located on the upstream side of the bridge at the third floor beam from the right-bank end of the truss bridge, resting on the cross-ties outside the guard rail; length of chain, 54.13 feet. The slope of the water surface between the two points was 0.30 foot, so that the new datum for the gage was made 0.30 foot higher than the former datum and the elevations of the bench marks reduced by that amount. The bench marks are as follows: (1) The top of the upstream end of the third floor beam from the right-bank end of the main bridge; elevation, 52.93 feet. (2) The under surface at the middle point of the projecting cap on the downstream side of the concrete pier supporting the left end of the first girder span on the right bank; elevation, 39.90 feet. Elevations refer to the datum of the new gage.

Discharge Measurements of Little Tennessee River at McGhee, Tenn.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1905. | | | | | | |
| Feb. 2 | B. S. Drane | 465 | 1,878 | 1.81 | 3.18 | 3,392 |
| Feb. 16 | ....do | 478 | 2,871 | 2.98 | 4.95 | 8,442 |
| Apr. 13 | O. P. Hall | 470 | 2,747 | 2.94 | 5.02 | 8,063 |
| June 17 | ....do | 451 | 1,970 | 1.97 | 3.36 | 3,884 |
| Oct. 9* | ....do | 348 | 587 | 2.92 | 2.25 | 1,715 |
| Dec. 14* | M. R. Hall | 452 | 1,364 | 3.95 | 3.95 | 5,383 |
| 1906. | | | | | | |
| Feb. 14 | O. P. Hall | 464 | 1,330 | .... | 3.84 | 4,910 |
| Apr. 21 | ....do | 477 | 1,730 | .... | 4.62 | 7,230 |
| June 14 | ....do | 502 | 2,430 | .... | 5.74 | 11,000 |
| Nov. 1 | ....do | 458 | 1,290 | .... | 3.81 | 4,770 |
| 1907. | | | | | | |
| Apr. 27 | M. R. Hall | 485 | 2,018 | 4.21 | 5.05 | 8,504 |
| Aug. 15 | F. A. Murray | 462 | 1,200 | 3.05 | 3.29 | 3,663 |

*Measurement made from new bridge.

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT MCGHEE, TENN., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.10 | 3.10 | 4.60 | 3.80 | 5.20 | 3.90 | 4.30 | 3.00 | 3.00 | 2.30 | 2.30 | 2.20 |
| 2 | 2.00 | 3.10 | 4.40 | 3.70 | 4.60 | 3.70 | 3.80 | 2.90 | 3.60 | 2.30 | 2.20 | 2.70 |
| 3 | 2.40 | 2.80 | 4.30 | 3.70 | 4.20 | 3.50 | 3.50 | 2.90 | 3.40 | 2.30 | 2.20 | 7.80 |
| 4 | 2.60 | 3.10 | 4.20 | 3.70 | 4.20 | 3.50 | 3.30 | 2.90 | 3.10 | 2.80 | 2.20 | 7.00 |
| 5 | 2.10 | 3.10 | 4.10 | 3.80 | 4.10 | 3.40 | 3.20 | 2.90 | 3.00 | 2.90 | 2.20 | 4.80 |
| 6 | 2.10 | 4.60 | 4.10 | 4.30 | 4.60 | 3.40 | 3.40 | 2.90 | 2.90 | 2.50 | 2.30 | 3.90 |
| 7 | 2.80 | 4.40 | 4.00 | 4.40 | 4.70 | 3.30 | 3.80 | 2.90 | 2.80 | 2.40 | 2.40 | 3.60 |
| 8 | 2.70 | 4.50 | 4.00 | 4.10 | 4.80 | 3.20 | 3.40 | 3.20 | 2.80 | 2.30 | 2 40 | 3.60 |
| 9 | 2.60 | 14.00 | 4.40 | 4.40 | 5.00 | 3.10 | 3.20 | 3.80 | 2.70 | 2.20 | 2.40 | 6.40 |
| 10 | 2.80 | 8.80 | 7.40 | 4.60 | 4.40 | 3.10 | 3.30 | 3.70 | 2.70 | 2.30 | 2.30 | 7.50 |
| 11 | 3.50 | 6.30 | 6.60 | 4.20 | 4.00 | 3.00 | 3.40 | 5.00 | 2.70 | 3.20 | 2.30 | 6.00 |
| 12 | 4.90 | 4.30 | 5.40 | 4.80 | 4.00 | 3.10 | 6.30 | 5.60 | 2.70 | 4.70 | 2.30 | 4.60 |
| 13 | 13.00 | 6.00 | 5.00 | 5.20 | 3.80 | 3.30 | 8.70 | 4.90 | 3.00 | 3.10 | 2.30 | 4.20 |
| 14 | 7.00 | 5.50 | 4.70 | 4.60 | 3.70 | 3.20 | 5.80 | 4.40 | 2.80 | 2.70 | 2.30 | 3.90 |
| 15 | 5.50 | 5.60 | 4.50 | 4.20 | 3.60 | 3.00 | 5.20 | 5.10 | 2.60 | 2.60 | 2.20 | 4.00 |
| 16 | 4.60 | 4.70 | 4.30 | 4.10 | 5.60 | 3.50 | 4.70 | 4.60 | 2.50 | 2.50 | 2.20 | 4.30 |
| 17 | 4.00 | 4.90 | 4.10 | 4.00 | 6.40 | 3.40 | 4.30 | 4.30 | 2.50 | 2.50 | 2 20 | 4.10 |
| 18 | 3.80 | 4.60 | 4.00 | 3.80 | 5.10 | 3.30 | 4.00 | 4.10 | 2.50 | 2.50 | 2.20 | 3.90 |
| 19 | 3.80 | 4.20 | 4.00 | 3.70 | 4.60 | 3.30 | 3.90 | 4.10 | 2.50 | 2.40 | 2.20 | 3.70 |
| 20 | 3.70 | 5.20 | 4.00 | 3.60 | 4.40 | 3.60 | 4.10 | 3.80 | 2.50 | 2.50 | 2.40 | 3.60 |
| 21 | 3.60 | 13.70 | 4.60 | 3.60 | 4.10 | 3.60 | 3.80 | 3.60 | 2.50 | 2.70 | 2.80 | 4.90 |
| 22 | 3.50 | 9.10 | 5.30 | 3.70 | 4.30 | 3.90 | 3.80 | 3.40 | 2.50 | 2.50 | 2.60 | 5.10 |
| 23 | 3.50 | 7.60 | 4.50 | 3.60 | 4.60 | 4.30 | 4.10 | 3.40 | 2.50 | 2.40 | 2.40 | 6.00 |
| 24 | 3.30 | 6.90 | 4.30 | 3.50 | 5.60 | 3.90 | 3.70 | 6.10 | 2.40 | 2.30 | 2.30 | 6.40 |
| 25 | 3.20 | 5.80 | 4.30 | 3.40 | 5.00 | 3.50 | 3.50 | 4.90 | 2.30 | 2.30 | 2.30 | 5.50 |
| 26 | 2.40 | 5.50 | 4.20 | 3.50 | 4.50 | 3.30 | 3.40 | 4.00 | 2.30 | 2.50 | 2.30 | 4.80 |
| 27 | 2.30 | 5.10 | 4.10 | 4.30 | 4.30 | 4.20 | 3.30 | 3.70 | 2.30 | 3.10 | 2.30 | 4.40 |
| 28 | 2.30 | 4.80 | 4.00 | 4.20 | 4.20 | 5.00 | 3.20 | 3.40 | 2.30 | 2.80 | 2.30 | 4.20 |
| 29 | 3.00 | ------- | 3.90 | 4.30 | 4.10 | 3.80 | 3.50 | 3.20 | 2.30 | 2.60 | 2.30 | 4.30 |
| 30 | 3.10 | ------- | 3.90 | 6.50 | 4.00 | 3.50 | 3.30 | 3.10 | 2.30 | 2.40 | 2.20 | 4.20 |
| 31 | 3.10 | ------- | 4.00 | ------- | 4.20 | ------- | 3.10 | 3.00 | ------- | 2.40 | ------ | 4.00 |
| 1906. | | | | | | | | | | | | |
| 1 | 3.80 | 4.80 | 3.70 | 6.20 | 4.00 | 3.30 | 3.80 | 4.90 | 6.10 | 13.30 | 3.80 | 4.70 |
| 2 | 3.70 | 4.70 | 3.60 | 5.60 | 4.20 | 4.10 | 3.60 | 5.10 | 5.70 | 8.50 | 3.80 | 4.50 |
| 3 | 4.00 | 4.50 | 4.00 | 5.20 | 4.10 | 4.30 | 3.50 | 4.90 | 5.20 | 9.30 | 3.80 | 4.60 |
| 4 | 12.50 | 4.40 | 6.70 | 4.90 | 4.50 | 3.70 | 3.80 | 5.50 | 4.60 | 9.40 | 3.70 | 4.60 |
| 5 | 7.60 | 4.30 | 5.00 | 4.70 | 4.20 | 3.90 | 4.40 | 5.50 | 5.10 | 8.00 | 3.60 | 4.40 |
| 6 | 6.00 | 4.30 | 4.50 | 4.70 | 4.10 | 3.90 | 3.80 | 5.00 | 5.60 | 7.20 | 3.60 | 4.30 |
| 7 | 5.20 | 4.20 | 4.20 | 4.90 | 4.50 | 3.80 | 4.40 | 5.00 | 5.30 | 8.70 | 3.60 | 4.90 |
| 8 | 4.80 | 4.10 | 4.20 | 4.50 | 4.30 | 3.60 | 5.00 | 4.50 | 5.20 | 7.10 | 3.60 | 4.50 |
| 9 | 5.60 | 4.00 | 4.30 | 4.60 | 4.00 | 3.40 | 5.30 | 4.30 | 5.00 | 6.30 | 3.60 | 4.30 |
| 10 | 4.60 | 3.90 | 4.20 | 7.10 | 3.90 | 3.30 | 4.40 | 4.20 | 6.00 | 5.80 | 3.50 | 4.30 |
| 11 | 4.40 | 3.70 | 4.10 | 5.60 | 3.80 | 3.30 | 3.90 | 4.10 | 5.10 | 5.50 | 3.60 | 4.90 |
| 12 | 4.80 | 3.70 | 4.00 | 5.00 | 3.70 | 3.60 | 4.00 | 3.90 | 5.30 | 5.20 | 4.00 | 5.00 |
| 13 | 5.00 | 3.90 | 3.90 | 4.80 | 3.70 | 3.70 | 3.90 | 3.90 | 5.10 | 5.10 | 3.60 | 4.60 |
| 14 | 4.80 | 3.80 | 3.80 | 4.60 | 3.60 | 5.80 | 3.60 | 4.00 | 4.30 | 4.90 | 3.50 | 4.40 |
| 15 | 4.70 | 3.80 | 5.50 | 7.70 | 3.50 | 5.50 | 8.20 | 4.80 | 4.20 | 4.80 | 3.50 | 4.30 |
| 16 | 4.70 | 3.70 | 7.50 | 6.60 | 3.40 | 7.60 | 6.40 | 4.90 | 3.30 | 4.70 | 3.50 | 4.30 |
| 17 | 4.50 | 3.60 | 5.50 | 5.60 | 3.40 | 5.60 | 6.00 | 4.50 | 3.20 | 4.50 | 3.50 | 4.30 |
| 18 | 4.40 | 3.60 | 5.00 | 5.30 | 3.40 | 4.80 | 9.30 | 4.40 | 3.10 | 4.50 | 4.30 | 7.80 |
| 19 | 5.00 | 3.60 | 4.80 | 5.00 | 3.40 | 4.90 | 7.70 | 4.90 | 6.70 | 6.20 | 22.20 | 5.90 |
| 20 | 4.60 | 3.50 | 7.00 | 4.80 | 3.40 | 4.40 | 6.50 | 4.70 | 7.50 | 5.10 | 20.40 | 5.40 |
| 21 | 4.40 | 3.50 | 5.90 | 4.70 | 3.40 | 4.10 | 6.50 | 4.90 | 5.90 | 4.90 | 10.00 | 5.30 |
| 22 | 4.30 | 4.50 | 5.30 | 4.60 | 3.30 | 4.00 | 8.00 | 4.50 | 5.50 | 4.70 | 8.20 | 5.20 |
| 23 | 14.00 | 4.00 | 5.00 | 4.40 | 3.30 | 3.90 | 7.70 | 4.40 | 5.30 | 4.50 | 7.10 | 4.70 |
| 24 | 9.20 | 3.80 | 4.70 | 4.20 | 3.20 | 4.90 | 6.20 | 4.30 | 5.30 | 4.40 | 6.50 | 4.60 |
| 25 | 6.90 | 3.70 | 4.80 | 4.20 | 3.20 | 5.50 | 5.50 | 5.00 | 5.00 | 4.30 | 5.90 | 4.10 |
| 26 | 6.20 | 3.70 | 4.60 | 4.10 | 3.20 | 5.50 | 5.00 | 4.50 | 4.90 | 4.20 | 5.60 | 3.90 |
| 27 | 6.20 | 3.70 | 4.80 | 4.10 | 4.00 | 4.70 | 5.20 | 4.50 | 4.60 | 4.10 | 5.40 | 4.20 |
| 28 | 5.80 | 4.00 | 5.00 | 4.20 | 4.10 | 4.40 | 5.00 | 5.10 | 4.70 | 4.00 | 5.20 | 4.90 |
| 29 | 5.50 | ------- | 4.80 | 4.40 | 4.10 | 4.10 | 4.50 | 4.80 | 5.00 | 4.00 | 5.00 | 7.70 |
| 30 | 5.20 | ------- | 5.80 | 4.10 | 3.70 | 4.00 | 5.20 | 5.70 | 8.90 | 3.90 | 4.80 | 6.30 |
| 31 | 5.00 | ------- | 7.60 | ------- | 3.50 | ------- | 5.00 | 7.20 | ------- | 3.90 | ------ | 6.50 |

Daily Gage Height, in Feet, of Little Tennessee River at McGhee, Tenn., for 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.50 | 4.40 | 4.60 | 4.60 | 4.30 | 4.80 | 4.40 | 3.00 | 2.60 | 3.80 | 2.60 | 3.70 |
| 2 | 6.30 | 9.10 | 5.50 | 4.20 | 4.20 | 5.60 | 4.10 | 3.10 | 2.60 | 3.50 | 2.70 | 3.60 |
| 3 | 5.70 | 6.20 | 6.90 | 3.90 | 4.10 | 4.70 | 3.40 | 3.00 | 2.60 | 3.30 | 4.40 | 3.50 |
| 4 | 5.50 | 5.30 | 5.60 | 3.80 | 5.10 | 4.60 | 4.10 | 2.90 | 2.80 | 3.20 | 3.50 | 3.50 |
| 5 | 5.30 | 6.00 | 5.00 | 3.70 | 5.00 | 4.40 | 3.90 | 2.90 | 2.80 | 3.50 | 3.10 | 3.40 |
| 6 | 5.00 | 6.20 | 4.80 | 3.90 | 4.50 | 4.20 | 3.70 | 3.30 | 2.80 | 3.90 | 3.00 | 3.20 |
| 7 | 4.80 | 5.50 | 4.50 | 4.20 | 5.80 | 4.00 | 3.60 | 3.30 | 2.60 | 3.40 | 3.00 | 3.30 |
| 8 | 4.70 | 5.10 | 5.40 | 4.30 | 6.10 | 4.00 | 3.50 | 3.00 | 2.70 | 3.30 | 2.90 | 3.30 |
| 9 | 4.60 | 4.90 | 5.30 | 4.20 | 5.60 | 6.10 | 3.40 | 3.00 | 3.40 | 3.40 | 2.80 | 3.20 |
| 10 | 4.60 | 4.60 | 5.20 | 4.20 | 5.10 | 5.30 | 3.30 | 2.90 | 3.00 | 3.20 | 3.90 | 3.70 |
| 11 | 4.50 | 4.50 | 6.60 | 4.00 | 5.10 | 4.80 | 3.40 | 2.90 | 3.00 | 3.10 | 5.00 | 5.40 |
| 12 | 4.40 | 4.40 | 5.50 | 3.90 | 5.90 | 4.50 | 3.40 | 2.90 | 3.50 | 3.00 | 4.00 | 4.20 |
| 13 | 4.30 | 4.30 | 4.40 | 3.90 | 5.20 | 4.20 | 5.50 | 3.20 | 2.90 | 2.90 | 3.60 | 4.00 |
| 14 | 4.30 | 4.20 | 4.70 | 3.80 | 4.90 | 4.50 | 4.50 | 3.00 | 2.70 | 2.90 | 3.40 | 4.30 |
| 15 | 4.10 | 4.10 | 5.60 | 3.70 | 4.70 | 4.50 | 4.00 | 3.10 | 2.60 | 2.80 | 3.30 | 5.80 |
| 16 | 4.10 | 4.00 | 5.40 | 3.90 | 4.90 | 4.00 | 3.70 | 3.30 | 2.50 | 2.80 | 3.20 | 4.90 |
| 17 | 4.10 | 4.00 | 4.90 | 4.30 | 4.50 | 3.60 | 3.60 | 3.50 | 2.50 | 2.80 | 3.10 | 4.50 |
| 18 | 4.30 | 3.90 | 4.70 | 4.10 | 4.30 | 3.60 | 3.50 | 3.30 | 2.60 | 2.80 | 3.20 | 4.20 |
| 19 | 4.10 | 3.90 | 4.50 | 5.10 | 4.20 | 3 60 | 3.50 | 3.30 | 2.60 | 2.70 | 3.90 | 4.10 |
| 20 | 4.10 | 3.90 | 4.40 | 5.70 | 4.10 | 3.90 | 3.60 | 3.20 | 2.50 | 2.70 | 3.70 | 4.00 |
| 21 | 4.70 | 3.80 | 4.30 | 4.70 | 4.00 | 3.90 | 3.50 | 3.00 | 2.40 | 2.70 | 3.50 | 3.80 |
| 22 | 4.20 | 3.80 | 4.20 | 4.40 | 3.90 | 3.70 | 3.30 | 3.20 | 3.00 | 2.70 | 4.80 | 3.80 |
| 23 | 4.10 | 3.80 | 4.10 | 5.20 | 3.80 | 3.90 | 3.20 | 3.20 | 6.30 | 2.70 | 4.90 | 4.00 |
| 24 | 4.00 | 3.70 | 4.00 | 6.00 | 3.80 | 4.30 | 3.20 | 3.20 | 6.60 | 2.70 | 9.80 | 6.50 |
| 25 | 4.00 | 4.40 | 4.00 | 5.20 | 3.80 | 5.30 | 3.10 | 3.10 | 4.20 | 2.70 | 6.70 | 5.20 |
| 26 | 4.00 | 4.10 | 3.90 | 4.80 | 4.00 | 4.50 | 3.30 | 3.00 | 3.50 | 2.60 | 5.30 | 4.60 |
| 27 | 4.00 | 5.00 | 4.10 | 5.20 | 4.50 | 4.40 | 3.30 | 2.90 | 3.20 | 2.70 | 4.70 | 4.50 |
| 28 | 3.90 | 4.80 | 3.90 | 5.00 | 4.10 | 4.00 | 3.10 | 2.80 | 3.20 | 3.20 | 4.30 | 4.30 |
| 29 | 3.80 | ------ | 3.80 | 4.60 | 3.80 | 7.70 | 3.00 | 3.00 | 5.20 | 3.10 | 4.10 | 4.20 |
| 30 | 3.70 | ------ | 3.70 | 4.40 | 3.70 | 5.00 | 3.70 | 2.80 | 4.50 | 2.80 | 3.90 | 5.30 |
| 31 | 3.80 | ------ | 3.70 | ------ | 3.80 | ------ | 3.60 | 2.70 | ------ | 2.70 | ------ | 8.80 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT MCGHEE, TENN., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.20 | 5.00 | 5.20 | 4.90 | 5.00 | 4.00 | 3.00 | 2.80 | 3.20 | 2.50 |
| 2 | 4.50 | 5.30 | 5.30 | 4.70 | 4.50 | 3.80 | 3.00 | 2.70 | 3.10 | 2.40 |
| 3 | 5.00 | 4.20 | 5.80 | 4.60 | 4.50 | 3.70 | 3.00 | 2.70 | 3.30 | 2.40 |
| 4 | 4.40 | 4.30 | 5.60 | 4.40 | 4.40 | 3.80 | 3.60 | 2.70 | 3.00 | 2.40 |
| 5 | 9.50 | 4.40 | 5.20 | 4.30 | 4.30 | 4.10 | 4.70 | 3.10 | 2.90 | 2.40 |
| 6 | 7.00 | 4.50 | 5.20 | 4.70 | 4.50 | 4.00 | 4.50 | 3.80 | 4.20 | 2.30 |
| 7 | 5.90 | 4.70 | 5.10 | 4.50 | 4.60 | 3.90 | 4.30 | 4.80 | 3.90 | 2.30 |
| 8 | 5.60 | 4.30 | 5.00 | 4.30 | 5.70 | 3.70 | 6.20 | 3.80 | 3.30 | 2.20 |
| 9 | 5.10 | 4.20 | 4.80 | 4.20 | 4.80 | 3.60 | 4.50 | 4.60 | 3.10 | 2.30 |
| 10 | 4.80 | 4.30 | 4.70 | 4.20 | 4.60 | 3.50 | 4.40 | 4.30 | 3.00 | 3.30 |
| 11 | 4.60 | 4.50 | 4.50 | 4.10 | 4.50 | 3.70 | 4.10 | 3.60 | 2.90 | 3.60 |
| 12 | 10.80 | 4.70 | 6.50 | 4.00 | 4.30 | 3.80 | 4.00 | 3.20 | 2.90 | 2.80 |
| 13 | 8.90 | 5.20 | 6.50 | 3.90 | 4.20 | 3.50 | 3.70 | 3.10 | 2.80 | 2.60 |
| 14 | 6.90 | 6.60 | 5.60 | 3.90 | 4.10 | 3.50 | 3.50 | 3.00 | 2.80 | 2.50 |
| 15 | 5.60 | 10.00 | 5.20 | 3.90 | 4.00 | 4.40 | 3.70 | 2.90 | 2.80 | 2.40 |
| 16 | 5.60 | 11.00 | 5.00 | 5.80 | 4.00 | 4.30 | 3.50 | 2.90 | 2.70 | 2.40 |
| 17 | 6.10 | 7.90 | 4.70 | 5.00 | 3.80 | 3.70 | 3.50 | 2.90 | 2.70 | 2.40 |
| 18 | 5.50 | 6.60 | 4.60 | 4.60 | 4.20 | 3.50 | 3.30 | 3.00 | 2.70 | 2.30 |
| 19 | 5.10 | 6.10 | 4.50 | 4.80 | 4.70 | 3.40 | 3.70 | 3.00 | 2.60 | 2.30 |
| 20 | 4.90 | 5.80 | 4.60 | 4.60 | 5.50 | 3.30 | 3.70 | 3.70 | 2.50 | 2.30 |
| 21 | 4.70 | 5.30 | 7.90 | 4.40 | 4.60 | 3.40 | 3.20 | 3.30 | 2.60 | 2.30 |
| 22 | 4.70 | 5.20 | 6.10 | 4.20 | 4.30 | 3.40 | 3.10 | 5.20 | 2.60 | 2.30 |
| 23 | 4.70 | 5.00 | 5.50 | 4.10 | 4.10 | 3.40 | 3.00 | 6.60 | 2.50 | 2.40 |
| 24 | 4.50 | 4.90 | 10.60 | 4.10 | 4.40 | 3.30 | 3.10 | 4.30 | 2.50 | 4.00 |
| 25 | 4.30 | 4.70 | 8.60 | 4.70 | 4.10 | 3.40 | 3.10 | 4.50 | 2.50 | 3.50 |
| 26 | 4.20 | 4.90 | 6.90 | 8.30 | 4.30 | 3.70 | 3.00 | 5.10 | 2.50 | 3.00 |
| 27 | 4.40 | 4.50 | 6.10 | 6.10 | 4.20 | 3.20 | 3.00 | 4.30 | 2.40 | 2.70 |
| 28 | 4.40 | 4.70 | 5.70 | 5.50 | 4.20 | 3.10 | 3.00 | 3.80 | 2.40 | 2.60 |
| 29 | 4.20 | 4.30 | 5.40 | 5.00 | 4.10 | 3.10 | 2.90 | 3.60 | 2.60 | 3.20 |
| 30 | 4.10 | ..... | 5.20 | 4.80 | 4.50 | 3.00 | 3.20 | 3.40 | 2.70 | 4.00 |
| 31 | 4.00 | ..... | 5.00 | ..... | 4.10 | ..... | 3.00 | 3.30 | ..... | 3.50 |

RATING TABLE FOR LITTLE TENNESSEE RIVER AT MCGHEE, TENN., FOR 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.00 | 1,390 | 3.60 | 4,470 | 5.20 | 8,850 | 7.60 | 16,240 |
| 2.10 | 1,520 | 3.70 | 4,720 | 5.30 | 9,140 | 7.80 | 16,880 |
| 2.20 | 1,650 | 3.80 | 4,970 | 5.40 | 9,430 | 8.00 | 17,520 |
| 2.30 | 1,790 | 3.90 | 5,230 | 5.50 | 9,720 | 8.20 | 18,180 |
| 2.40 | 1,940 | 4.00 | 5,490 | 5.60 | 10,020 | 8.40 | 18,840 |
| 2.50 | 2,090 | 4.10 | 5,760 | 5.70 | 10,320 | 8.60 | 19,500 |
| 2.60 | 2,250 | 4.20 | 6,030 | 5.80 | 10,620 | 8.80 | 20,160 |
| 2.70 | 2,420 | 4.30 | 6,300 | 5.90 | 10,920 | 9.00 | 20,820 |
| 2.80 | 2,600 | 4.40 | 6,580 | 6.00 | 11,220 | 10.00 | 24,220 |
| 2.90 | 2,800 | 4.50 | 6,860 | 6.20 | 11,840 | 11.00 | 27,720 |
| 3.00 | 3,020 | 4.60 | 7,140 | 6.40 | 12,460 | 12.00 | 31,320 |
| 3.10 | 3,250 | 4.70 | 7,420 | 6.60 | 13,080 | 13.00 | 35,020 |
| 3.20 | 3,490 | 4.80 | 7,700 | 6.80 | 13,700 | 14.00 | 38,820 |
| 3.30 | 3,730 | 4.90 | 7,980 | 7.00 | 14,320 | | |
| 3.40 | 3,970 | 5.00 | 8,270 | 7.20 | 14,960 | | |
| 3.50 | 4,220 | 5.10 | 8,560 | 7.40 | 15,600 | | |

NOTE.—The above table is based on six discharge measurements made during 1905. It is well defined between gage heights 2.2 feet and 5 feet. The table has been extended beyond these limits.

RATING TABLE FOR LITTLE TENNESSEE RIVER AT MCGHEE, TENN., FOR 1906 AND 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.40 | 1,940 | 3.90 | 5,150 | 5.40 | 9,420 | 7.80 | 16,880 |
| 2.50 | 2,090 | 4.00 | 5,410 | 5.50 | 9,720 | 8.00 | 17,520 |
| 2.60 | 2,250 | 4.10 | 5,680 | 5.60 | 10,020 | 8.20 | 18,180 |
| 2.70 | 2,420 | 4.20 | 5,950 | 5.70 | 10,320 | 8.40 | 18,840 |
| 2.80 | 2,600 | 4.30 | 6,220 | 5.80 | 10,620 | 8.60 | 19,500 |
| 2.90 | 2,790 | 4.40 | 6,500 | 5.90 | 10,920 | 8.80 | 20,160 |
| 3.00 | 2,990 | 4.50 | 6,780 | 6.00 | 11,220 | 9.00 | 20,820 |
| 3.10 | 3,200 | 4.60 | 7,060 | 6.20 | 11,840 | 10.00 | 24,220 |
| 3.20 | 3,420 | 4.70 | 7,350 | 6.40 | 12,460 | 11.00 | 27,720 |
| 3.30 | 3,650 | 4.80 | 7,640 | 6.60 | 13,080 | 12.00 | 31,320 |
| 3.40 | 3,890 | 4.90 | 7,930 | 6.80 | 13,700 | 13.00 | 35,020 |
| 3.50 | 4,130 | 5.00 | 8,220 | 7.00 | 14,320 | 14.00 | 38,820 |
| 3.60 | 4,380 | 5.10 | 8,520 | 7.20 | 14,960 | 15.00 | 42,620 |
| 3.70 | 4,630 | 5.20 | 8,820 | 7.40 | 15,600 | | |
| 3.80 | 4,890 | 5.30 | 9,120 | 7.60 | 16,240 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on eleven discharge measurements made during 1903 to 1906, and one made in 1901. It is well defined between gage heights 2.2 feet and 5.0 feet. Above gage height 13.0 feet the rating curve is a tangent, the difference being 380 per tenth.

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT MCGHEE, TENN.

[Drainage area, 2,470 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 35,020 | 1,390 | 4,959 | 2.01 | 2.32 |
| February | 38,820 | 2,600 | 10,990 | 4.45 | 4.63 |
| March | 15,600 | 5,230 | 6,880 | 2.79 | 3.22 |
| April | 12,770 | 3,970 | 5,836 | 2.36 | 2.63 |
| May | 12,460 | 4,470 | 6,928 | 2.80 | 3.23 |
| June | 8,270 | 3,020 | 4,312 | 1.75 | 1.95 |
| July | 19,830 | 3,250 | 5,661 | 2.29 | 2.64 |
| August | 11,530 | 2,800 | 5,168 | 2.09 | 2.41 |
| September | 4,470 | 1,790 | 2,423 | .981 | 1.09 |
| October | 7,420 | 1,650 | 2,363 | .957 | 1.10 |
| November | 2,600 | 1,650 | 1,811 | .733 | .818 |
| December | 16,880 | 1,650 | 7,586 | 3.07 | 3.54 |
| The year | 38,820 | 1,390 | 5,410 | 2.19 | 29.58 |
| 1906. | | | | | |
| January | 38,800 | 4,630 | 10,600 | 4.29 | 4.95 |
| February | 7,640 | 4,130 | 5,340 | 2.16 | 2.25 |
| March | 16,200 | 4,380 | 8,200 | 3.32 | 3.83 |
| April | 16,600 | 5,680 | 8,320 | 3.37 | 3.76 |
| May | 6,780 | 3,420 | 4,780 | 1.94 | 2.24 |
| June | 16,200 | 3,650 | 6,570 | 2.66 | 2.97 |
| July | 21,800 | 4,130 | 9,380 | 3.80 | 4.38 |
| August | 15,000 | 5,150 | 7,590 | 3.07 | 3.54 |
| September | 20,500 | 3,200 | 9,010 | 3.65 | 4.07 |
| October | 36,200 | 5,150 | 11,000 | 4.45 | 5.13 |
| November | 70,000 | 4,130 | 11,300 | 4.57 | 5.10 |
| December | 16,900 | 5,150 | 8,140 | 3.30 | 3.80 |
| The year | 70,000 | 3,200 | 8,350 | 3.38 | 46.02 |

NOTE.—Values for 1906 are excellent.

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT MCGHEE, TENN.

[Drainage area, 2,470 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1907. | | | | | |
| January | 15,900 | 4,630 | 6,940 | 2.81 | 3.24 |
| February | 21,200 | 4,630 | 7,490 | 3.03 | 3.16 |
| March | 14,000 | 4,630 | 7,560 | 3.06 | 3.53 |
| April | 11,200 | 4,630 | 6,630 | 2.69 | 3.00 |
| May | 11,500 | 4,630 | 6,950 | 2.81 | 3.24 |
| June | 16,600 | 4,380 | 6,910 | 2.80 | 3.12 |
| July | 9,720 | 2,990 | 4,490 | 1.82 | 2.10 |
| August | 4,130 | 2,420 | 3,140 | 1.27 | 1.46 |
| September | 13,100 | 1,940 | 3,820 | 1.55 | 1.73 |
| October | 5,150 | 2,250 | 3,090 | 1.25 | 1.44 |
| November | 23,500 | 2,250 | 5,680 | 2.30 | 2.57 |
| December | 20,200 | 3,420 | 6,500 | 2.63 | 3.03 |
| The year | 23,500 | 1,940 | 5,770 | 2.34 | 31.62 |

LITTLE TENNESSEE RIVER AT JUDSON, N. C.

This station was established in June, 1896. It is located on the Southern Railway bridge, about one-fourth mile from Judson, N. C.

The channel is straight for several hundred yards above and below the station; the bottom rocky and very rough on the west side and sandy on the east side. The current is swift and considerably obstructed by two wide timber piers. The section is constant, but not a good one for measurements.

The original gage was a standard chain gage located on the downstream side of the first span from the left end of the bridge; length of chain, 26.29 feet. In 1905 a vertical gage was installed. The vertical gage is in two sections; the first, reading from 1.5 feet to 6 feet, is bolted to a solid rock on the right bank, about 100 feet above the bridge. The second section, reading from 6 to 11 feet, is fastened to a maple tree about 30 feet downstream from the first section. This gage was set to read with the chain gage at a gage height of 3 feet, but owing to the large amount of slope in the river, the actual elevation of its zero is 0.50 foot above the datum of the chain gage. The gage is read once each day by J. L. Enloe. Bench marks were established as follows: (1) The top of the angle block on the lower chord at the middle of the first span from the left end of the bridge, on the downstream side; elevation, 22.86 feet. (2) A standard copper bolt set in the rock near the end of the tunnel on the right bank, 130 feet from the end of the bridge and 8 feet from the center of the track; elevation 27.64 feet. Elevations refer to the datum of the vertical gage.

DISCHARGE MEASUREMENTS OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1896. | | | | | |
| June 25 | E. W. Myers | 345 | 2.69 | 2.76 | 929 |
| Sept. 23 | do | 286 | 2.71 | 3.00 | 775 |
| 1897. | | | | | |
| Aug. 21 | E. W. Myers | 278 | 2.78 | 3.21 | 771 |
| Oct. 13 | do | 247 | 2.83 | 2.75 | 701 |
| Oct. 28 | A. P. Davis | 207 | 2.77 | 2.44 | 448 |
| 1898. | | | | | |
| Sept. 6 | E. W. Myers | 920 | 10.67 | 7.30 | 9,821 |
| 1899. | | | | | |
| Feb. 27 | | --- | --- | 10.25 | 21,880 |
| June 20 | | --- | --- | 3.30 | 1,491 |
| Sept. 21 | | --- | --- | 2.23 | 339 |
| Sept. 27 | | --- | --- | 2.65 | 721 |
| Oct. 29 | | --- | --- | 2.84 | 896 |
| Dec. 6 | | --- | --- | 2.75 | 758 |
| 1900. | | | | | |
| Feb. 10 | | --- | --- | 4.55 | 3,726 |
| Mar. 30 | | --- | --- | 4.40 | 3,179 |
| Apr. 28 | | --- | --- | 4.55 | 3,785 |
| May 25 | | --- | --- | 3.50 | 1,744 |
| June 28 | | --- | --- | 5.00 | 4,644 |
| Aug. 4 | | --- | --- | 3.45 | 1,668 |
| Nov. 17 | | --- | --- | 2.88 | 1,008 |
| Dec. 27 | | --- | --- | 3.40 | 1,414 |
| 1901. | | | | | |
| Feb. 22 | | --- | --- | 3.45 | 1,444 |
| Apr. 18 | | --- | --- | 4.28 | 2,319 |
| Sept. 19 | | --- | --- | 5.00 | 4,200 |
| Dec. 12 | | --- | --- | 2.95 | 1,062 |
| 1902. | | | | | |
| Aug. 11 | B. S. Drane | 277 | 2.50 | 2.50 | 686 |
| Aug. 22 | do | 267 | 1.76 | 2.50 | 471 |
| Oct. 25 | do | 308 | 2.39 | 2.62 | 736 |

DISCHARGE MEASUREMENTS OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.—*Continued.*

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Mar. 30 | B. S. Drane | --- | 1,037 | ---- | 6.91 | 10,494 |
| Apr. 26 | E. W. Myers | --- | 543 | ---- | 4.35 | 3,033 |
| June 28 | ----do | --- | 395 | ---- | 3.56 | 1,796 |
| Aug. 20 | B. S. Drane | --- | 285 | ---- | 2.86 | 1,097 |
| Oct. 10 | ----do | --- | 277 | ---- | 2.48 | 565 |
| Oct. 10 | ----do | --- | 271 | ---- | 2.46 | 559 |
| 1904. | | | | | | |
| Mar. 21 | B. S. Drane | --- | 434 | 3.58 | 3.49 | 1,554 |
| May 25 | ----do | --- | 303 | 3.27 | 2.95 | 993 |
| Aug. 15 | ----do | --- | 311 | 3.07 | 2.98 | 955 |
| Sept. 30 | ----do | --- | 216 | 2.02 | 2.32 | 436 |
| Dec. 13 | ----do | --- | 249 | 2.33 | 2.53 | 580 |
| 1905. | | | | | | |
| Apr. 14 | B. S. Drane | 150 | 416 | 4.12 | 3.60 | 1,714 |
| June 14 | O. P. Hall | 139 | 305 | 3.10 | 3.02 | 944 |
| Oct. 14 | ----do | 139 | 298 | 2.85 | 2.79 | 851 |
| 1906. | | | | | | |
| Feb. 10 | O. P. Hall | 147 | 445 | ---- | 3.82 | 1,860 |
| Apr. 13 | ----do | 155 | 508 | ---- | 4.18 | 2,630 |
| June 9 | ----do | 144 | 378 | ---- | 3.30 | 1,480 |
| Nov. 5 | ----do | 152 | 433 | ---- | 3.72 | 1,820 |
| Nov. 6 | ----do | 152 | 424 | ---- | 3.70 | 1,810 |
| 1907. | | | | | | |
| May 22 | F. A. Murray | 150 | 356 | 4.25 | 3.48 | 1,513 |
| Oct. 18 | Olin P. Hall | 139 | 297 | 2.75 | 2.64 | 818 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1896.

| Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.70 | 3.35 | 2.60 | 2.90 | 3.10 | 7.70 | 17 | 4.00 | 3.60 | 2.70 | ------ | 3.70 | 4.53 |
| 2 | 2.80 | 3.30 | 2.60 | 2.80 | 2.90 | 6.30 | 18 | 3.65 | 3.10 | 2.70 | ------ | 3.68 | 3.83 |
| 3 | 2.77 | 3.30 | 2.70 | 2.78 | 2.80 | 5.30 | 19 | 3.64 | 3.00 | 2.60 | ------ | 3.60 | 3.88 |
| 4 | 2.95 | 3.30 | 2.80 | 2.68 | 2.99 | 4.30 | 20 | 3.70 | 3.00 | 2.70 | ------ | 3.50 | 3.80 |
| 5 | 2.85 | 3.21 | 2.90 | 2.60 | 5.70 | 4.40 | 21 | 3.70 | 3.20 | 2.70 | ------ | 3.50 | 3.80 |
| 6 | 3.82 | 3.19 | 2.90 | 2.53 | 4.55 | 4.30 | 22 | 4.10 | 3.85 | 2.67 | ------ | 3.50 | 3.79 |
| 7 | 4.22 | 3.15 | 2.80 | 2.55 | 3.30 | 4.20 | 23 | 5.11 | 2.83 | 2.18 | ------ | 3.50 | 3.78 |
| 8 | 6.70 | 3.13 | 2.60 | 2.54 | 3.30 | 4.10 | 24 | 4.28 | 2.92 | 2.68 | ------ | 3.50 | 3.78 |
| 9 | 8.80 | 3.19 | 2.55 | 2.53 | 3.51 | 4.10 | 25 | 4.20 | 3.00 | 2.60 | 3.10 | 3.40 | 3.75 |
| 10 | 5.70 | 3.21 | 2.53 | 2.53 | 3.50 | 4.90 | 26 | 4.10 | 3.00 | 2.54 | 2.90 | 3.50 | 3.45 |
| 11 | 8.95 | 3.12 | 2.50 | ------ | 3.40 | 4.80 | 27 | 3.85 | 2.80 | 2.60 | 2.90 | 3.60 | 3.46 |
| 12 | 4.65 | 3.10 | 2.64 | ------ | 4.30 | 3.88 | 28 | 3.92 | 2.80 | 2.60 | 2.80 | 3.70 | 3.54 |
| 13 | 4.50 | 3.20 | 2.63 | ------ | 5.70 | 3.89 | 29 | 3.80 | 2.90 | 2.60 | 2.90 | 6.10 | 3.46 |
| 14 | 4.20 | 3.10 | 2.53 | ------ | 4.30 | 3.89 | 30 | 3.56 | 2.80 | 3.30 | 3.10 | 7.70 | 3.61 |
| 15 | 3.95 | 3.90 | 2.84 | ------ | 4.20 | 4.30 | 31 | 3.45 | ------ | -------- | 3.00 | ------ | 3.60 |
| 16 | 4.00 | 3.70 | 2.75 | ------ | 3.30 | 4.60 | | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1897 AND 1898.

| 1897. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 3.40 | 5.50 | 4.20 | 6.23 | 4.20 | 3.82 | 3.30 | 3.48 | 2.83 | 2.52 | 2.38 | 2.58 |
| 2 | 3.56 | 6.40 | 3.56 | 7.50 | 3.56 | 3.78 | 3.50 | 3.46 | 2.85 | 2.53 | 3.30 | 2.56 |
| 3 | 3.53 | 5.54 | 3.56 | 7.91 | 3.54 | 2.91 | 3.42 | 3.39 | 2.89 | 2.60 | 2.86 | 2.55 |
| 4 | 3.54 | 4.80 | 3.53 | 7.90 | 3.52 | 4.20 | 3.50 | 3.43 | 2.86 | 2.54 | 2.70 | 3.00 |
| 5 | 3.51 | 4.59 | 3.56 | 6.55 | 3.53 | 4.80 | 3.60 | 3.45 | 2.84 | 2.55 | 2.58 | 4.58 |
| 6 | 3.52 | 5.30 | 4.50 | 6.53 | 3.58 | 3.90 | 3.70 | 3.40 | 2.84 | 2.57 | 2.79 | 4.39 |
| 7 | 3.65 | 4.56 | 4.35 | 5.80 | 3.57 | 3.59 | 3.63 | 3.46 | 2.85 | 2.50 | 2.80 | 4.00 |
| 8 | 3.65 | 4.59 | 4.59 | 5.70 | 3.57 | 3.58 | 3.67 | 3.48 | 2.73 | 2.56 | 2.72 | 3.80 |
| 9 | 3.64 | 4.50 | 6.40 | 5.30 | 3.22 | 3.55 | 3.75 | 3.47 | 2.71 | 2.53 | 2.73 | 3.00 |
| 10 | 3.63 | 4.47 | 7.29 | 4.23 | 3.23 | 3.56 | 3.72 | 3.44 | 2.73 | 4.54 | 2.78 | 2.90 |
| 11 | 3.69 | 5.20 | 7.38 | 4.50 | 3.27 | 3.59 | 3.70 | 3.38 | 2.77 | 4.58 | 2.70 | 2.89 |
| 12 | 3.65 | 5.28 | 9.20 | 4.60 | 3.27 | 3.57 | 3.48 | 3.35 | 2.89 | 2.56 | 2.76 | 2.86 |
| 13 | 3.66 | 5.26 | 7.32 | 5.70 | 4.76 | 3.58 | 3.49 | 3.36 | 2.89 | 2.49 | 2.79 | 2.80 |
| 14 | 3.65 | 5.30 | 7.23 | 5.23 | 5.21 | 3.53 | 3.42 | 3.32 | 2.83 | 2.50 | 2.61 | 3.51 |
| 15 | 3.64 | 4.59 | 7.15 | 4.59 | 5.13 | 3.59 | 3.45 | 3.35 | 2.88 | 2.53 | 2.63 | 3.00 |
| 16 | 3.62 | 4.56 | 6.35 | 5.40 | 4.12 | 3.61 | 3.51 | 4.00 | 2.86 | 2.53 | 2.68 | 3.00 |
| 17 | 3.65 | 3.70 | 5.53 | 4.54 | 4.90 | 3.62 | 4.33 | 3.86 | 2.90 | 2.54 | 2.73 | 2.89 |
| 18 | 3.64 | 3.80 | 6.95 | 3.53 | 4.70 | 3.60 | 4.56 | 3.86 | 2.90 | 2.60 | 2.70 | 2.90 |
| 19 | 3.69 | 3.53 | 7.65 | 3.52 | 4.30 | 3.60 | 4.91 | 3.78 | 2.80 | 2.22 | 2.69 | 2.96 |
| 20 | 4.80 | 3.52 | 8.90 | 3.15 | 3.57 | 3.48 | 5.20 | 3.52 | 2.38 | 3.48 | 2.67 | 3.40 |
| 21 | 4.80 | 4.30 | 8.00 | 3.22 | 3.56 | 3.50 | 4.36 | 3.32 | 2.40 | 3.37 | 2.68 | 3.58 |
| 22 | 4.82 | 5.60 | 8.50 | 3.21 | 3.56 | 3.42 | 4.20 | 3.22 | 2.37 | 2.86 | 2.60 | 4.56 |
| 23 | 4.62 | 8.60 | 7.53 | 3.18 | 3.41 | 3.44 | 4.21 | 3.23 | 2.33 | 2.70 | 2.65 | 4.59 |
| 24 | 4.60 | 6.75 | 7.85 | 3.18 | 3.90 | 3.47 | 3.78 | 3.35 | 2.39 | 2.72 | 2.67 | 3.48 |
| 25 | 3.90 | 4.75 | 6.25 | 3.32 | 3.70 | 3.41 | 3.72 | 3.29 | 2.50 | 2.60 | 2.70 | 3.36 |
| 26 | 3.84 | 4.63 | 5.55 | 3.39 | 3.90 | 3.48 | 3.70 | 3.90 | 2.60 | 2.63 | 2.82 | 3.38 |
| 27 | 3.84 | 4.53 | 5.53 | 3.30 | 3.80 | 3.46 | 3.73 | 3.00 | 2.52 | 2.35 | 3.10 | 3.30 |
| 28 | 3.83 | 4.29 | 5.60 | 3.41 | 3.51 | 3.45 | 3.71 | 3.33 | 2.50 | 2.39 | 2.89 | 3.00 |
| 29 | 3.68 | ..... | 5.56 | 3.90 | 3.60 | 3.43 | 3.75 | 2.78 | 2.53 | 2.39 | 2.80 | 2.97 |
| 30 | 3.69 | ..... | 5.70 | 3.99 | 3.90 | 3.40 | 3.71 | 2.79 | 2.57 | 2.33 | 2.86 | 2.78 |
| 31 | 3.65 | ..... | 6.21 | ..... | 3.80 | ..... | 3.69 | 2.77 | ..... | 2.34 | ..... | 2.90 |
| 1898. | | | | | | | | | | | | |
| 1 | 2.83 | 2.57 | 2.92 | 5.78 | 3.42 | 2.41 | 2.71 | 3.35 | 5.28 | 3.53 | 4.58 | 3.89 |
| 2 | 2.90 | 2.90 | 2.80 | 5.60 | 3.63 | 2.42 | 2.18 | 3.42 | 7.22 | 3.56 | 4.52 | 3.89 |
| 3 | 2.73 | 2.84 | 2.90 | 4.32 | 3.62 | 2.42 | 2.19 | 4.21 | 11.93 | 3.82 | 4.53 | 3.88 |
| 4 | 2.75 | 2.93 | 2.73 | 3.38 | 3.60 | 2.38 | 2.17 | 10.38 | 9.52 | 8.71 | 4.53 | 3.88 |
| 5 | 2.76 | 2.56 | 3.00 | 5.50 | 3.68 | 2.39 | 2.16 | 5.72 | 7.21 | 13.50 | 4.59 | 3.81 |
| 6 | 2.70 | 2.80 | 2.98 | 4.58 | 3.61 | 2.30 | 2.13 | 4.98 | 6.82 | 10.22 | 4.57 | 3.80 |
| 7 | 2.80 | 2.59 | 2.74 | 3.96 | 4.23 | 2.37 | 2.20 | 4.52 | 5.91 | 8.28 | 4.58 | 3.74 |
| 8 | 2.73 | 2.56 | 2.78 | 3.85 | 3.56 | 2.36 | 2.21 | 4.31 | 4.51 | 6.71 | 4.51 | 3.74 |
| 9 | 2.71 | 2.58 | 2.37 | 3.38 | 3.58 | 2.36 | 2.20 | 4.28 | 4.28 | 5.89 | 4.52 | 3.71 |
| 10 | 2.70 | 2.38 | 2.30 | 3.40 | 3.53 | 2.38 | 2.15 | 5.78 | 3.91 | 5.82 | 3.98 | 3.72 |
| 11 | 2.68 | 2.30 | 2.34 | 3.00 | 3.98 | 2.37 | 2.16 | 7.91 | 3.92 | 4.20 | 3.98 | 3.70 |
| 12 | 2.89 | 2.36 | 2.36 | 3.56 | 3.98 | 2.39 | 2.78 | 8.53 | 3.81 | 4.00 | 3.97 | 3.69 |
| 13 | 2.73 | 2.60 | 2.39 | 3.58 | 3.70 | 2.20 | 3.00 | 9.02 | 3.59 | 3.52 | 3.98 | 3.68 |
| 14 | 2.78 | 2.74 | 2.40 | 3.59 | 3.69 | 2.33 | 3.98 | 8.93 | 3.58 | 3.58 | 3.91 | 3.68 |
| 15 | 2.76 | 2.73 | 2.98 | 3.52 | 3.68 | 2.30 | 6.81 | 5.58 | 3.58 | 3.54 | 3.92 | 3.67 |
| 16 | 2.79 | 2.76 | 2.96 | 3.90 | 3.62 | 2.72 | 4.20 | 4.93 | 3.52 | 3.48 | 3.92 | 3.64 |
| 17 | 2.78 | 2.80 | 2.96 | 3.46 | 3.67 | 2.71 | 3.28 | 4.92 | 3.49 | 3.44 | 3.90 | 3.63 |
| 18 | 3.00 | 3.00 | 3.48 | 3.40 | 3.49 | 2.78 | 3.00 | 4.71 | 3.44 | 6.95 | 3.88 | 3.60 |
| 19 | 3.56 | 3.11 | 3.00 | 3.49 | 3.51 | 2.70 | 2.78 | 4.83 | 3.43 | 4.53 | 3.87 | 3.58 |
| 20 | 3.58 | 3.23 | 2.98 | 3.92 | 3.56 | 2.62 | 2.71 | 4.38 | 3.48 | 4.52 | 3.89 | 3.59 |
| 21 | 3.59 | 3.28 | 2.90 | 3.90 | 3.00 | 2.63 | 2.68 | 4.78 | 3.49 | 3.98 | 3.89 | 3.59 |
| 22 | 4.42 | 3.00 | 2.92 | 3.58 | 3.90 | 2.60 | 2.41 | 4.91 | 3.47 | 3.91 | 3.88 | 3.57 |
| 23 | 4.40 | 3.00 | 2.93 | 3.98 | 3.72 | 2.70 | 3.52 | 4.58 | 3.42 | 3.91 | 3.86 | 3.57 |
| 24 | 3.58 | 2.90 | 2.90 | 3.52 | 3.45 | 2.71 | 3.21 | 4.53 | 3.48 | 3.84 | 3.86 | 4.98 |
| 25 | 3.50 | 2.29 | 2.97 | 3.54 | 3.42 | 2.74 | 3.00 | 4.51 | 3.47 | 3.98 | 3.84 | 3.59 |
| 26 | 3.48 | 2.70 | 2.97 | 3.50 | 3.44 | 2.70 | 3.21 | 4.51 | 3.46 | 4.41 | 3.83 | 3.57 |
| 27 | 5.58 | 2.78 | 2.56 | 3.28 | 3.37 | 2.73 | 3.58 | 4.52 | 3.44 | 4.52 | 3.85 | 3.58 |
| 28 | 5.20 | 2.78 | 3.04 | 3.29 | 3.33 | 2.70 | 3.28 | 4.53 | 3.45 | 4.57 | 3.88 | 3.56 |
| 29 | 3.39 | ..... | 8.30 | 3.24 | 3.30 | 2.78 | 3.29 | 4.38 | 3.48 | 4.61 | 3.89 | 3.52 |
| 30 | 3.86 | ..... | 7.79 | 3.40 | 2.27 | 2.79 | 3.22 | 4.38 | 3.52 | 4.52 | 3.88 | 3.53 |
| 31 | 2.94 | ..... | 6.39 | ..... | 2.30 | ..... | 3.30 | 4.59 | ..... | 4.58 | ..... | 3.50 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1899 AND 1900.

| 1899. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.52 | 3.56 | 4.82 | 4.78 | 3.78 | 2.38 | 3.14 | 3.70 | 4.32 | 2.48 | 2.48 | 2.72 |
| 2 | 3.59 | 3.59 | 4.39 | 4.50 | 3.76 | 2.47 | 3.40 | 3.68 | 4.21 | 2.46 | 2.49 | 2.72 |
| 3 | 3.59 | 4.98 | 3.98 | 3.99 | 3.80 | 2.40 | 3.33 | 3.68 | 3.17 | 2.46 | 2.40 | 2.70 |
| 4 | 3.57 | 11.38 | 3.74 | 3.82 | 3.92 | 2.37 | 3.30 | 3.64 | 3.80 | 2.45 | 2.41 | 2.70 |
| 5 | 3.58 | 10.58 | 3.72 | 3.81 | 5.68 | 2.38 | 3.27 | 3.62 | 3.81 | 2.42 | 2.72 | 2.70 |
| 6 | 3.52 | 9.72 | 3.64 | 3.80 | 4.93 | 2.34 | 3.28 | 3.58 | 3.70 | 2.39 | 2.74 | 2.58 |
| 7 | 4.23 | 11.40 | 3.64 | 3.78 | 4.80 | 2.31 | 4.42 | 3.47 | 2.91 | 2.39 | 2.69 | 2.59 |
| 8 | 4.23 | 9.58 | 3.68 | 3.72 | 3.91 | 2.30 | 3.90 | 3.28 | 2.46 | 3.71 | 2.68 | 2.52 |
| 9 | 3.98 | 8.56 | 3.67 | 3.72 | 3.90 | 2.29 | 3.18 | 2.71 | 2.33 | 5.58 | 2.64 | 2.50 |
| 10 | 3.92 | 7.51 | 3.61 | 3.70 | 3.82 | 2.29 | 3.10 | 2.70 | 2.32 | 4.31 | 2.64 | 2.62 |
| 11 | 3.84 | 5.32 | 3.61 | 3.68 | 3.71 | 2.27 | 2.90 | 4.98 | 2.32 | 3.72 | 2.63 | 2.62 |
| 12 | 3.84 | 5.32 | 3.62 | 3.69 | 3.70 | 2.91 | 2.71 | 4.57 | 2.28 | 3.20 | 2.62 | 2.60 |
| 13 | 3.80 | 4.58 | 3.64 | 3.49 | 3.68 | 6.71 | 2.71 | 3.38 | 2.27 | 2.58 | 2.62 | 2.70 |
| 14 | 3.71 | 3.72 | 9.55 | 3.48 | 3.60 | 6.70 | 2.70 | 2.92 | 2.25 | 2.51 | 2.62 | 8.40 |
| 15 | 3.70 | 3.71 | 7.42 | 3.46 | 3.62 | 5.82 | 2.68 | 2.88 | 2.25 | 2.50 | 2.64 | 6.50 |
| 16 | 3.69 | 3.70 | 8.93 | 3.48 | 3.80 | 5.40 | 2.69 | 2.88 | 2.24 | 2.50 | 2.63 | 4.51 |
| 17 | 3.68 | 3.68 | 6.81 | 3.52 | 3.82 | 3.58 | 3.48 | 2.64 | 2.22 | 2.48 | 2.58 | 3.92 |
| 18 | 3.69 | 3.68 | 4.58 | 3.52 | 3.71 | 3.41 | 3.30 | 2.63 | 2.25 | 2.49 | 2.59 | 2.94 |
| 19 | 3.69 | 3.72 | 13.00 | 3.51 | 3.74 | 3.40 | 3.10 | 2.60 | 2.28 | 2.52 | 2.57 | 2.94 |
| 20 | 3.69 | 3.74 | 12.00 | 3.48 | 3.78 | 2.56 | 2.93 | 2.60 | 2.28 | 2.52 | 2.57 | 2.90 |
| 21 | 3.66 | 3.74 | 8.55 | 3.49 | 3.52 | 2.58 | 2.84 | 2.48 | 2.23 | 2.57 | 2.49 | 2.53 |
| 22 | 3.68 | 3.70 | 6.54 | 3.61 | 2.90 | 2.47 | 3.91 | 2.42 | 2.20 | 2.60 | 2.54 | 2.52 |
| 23 | 3.67 | 3.69 | 4.88 | 3.60 | 2.80 | 2.75 | 4.28 | 2.41 | 2.21 | 2.60 | 2.70 | 2.41 |
| 24 | 3.67 | 3.68 | 4.32 | 3.72 | 2.50 | 2.70 | 4.20 | 2.41 | 2.21 | 2.50 | 2.71 | 2.40 |
| 25 | 3.69 | 3.60 | 4.28 | 3.72 | 2.47 | 3.15 | 3.90 | 2.40 | 2.26 | 2.50 | 2.77 | 2.42 |
| 26 | 3.58 | 3.65 | 3.92 | 3.70 | 2.46 | 3.10 | 3.90 | 2.39 | 2.65 | 2.50 | 2.89 | 2.42 |
| 27 | 3.52 | 10.25 | 4.78 | 3.78 | 2.30 | 3.00 | 3.91 | 2.38 | 2.50 | 2.50 | 3.42 | 2.43 |
| 28 | 3.59 | 6.72 | 4.74 | 3.74 | 2.31 | 3.31 | 3.88 | 2.37 | 2.41 | 2.60 | 3.50 | 2.41 |
| 29 | 3.58 | ------- | 5.70 | 3.79 | 2.36 | 3.30 | 3.86 | 2.37 | 2.41 | 2.58 | 2.93 | 2.42 |
| 30 | 3.59 | ------- | 5.90 | 3.70 | 3.36 | 3.00 | 3.86 | 2.24 | 2.40 | 2.57 | 2.90 | 2.42 |
| 31 | 3.57 | ------- | 5.60 | ------- | 2.34 | ------- | 3.71 | 2.26 | ------- | 2.57 | ------ | 2.39 |
| 1900. | | | | | | | | | | | | |
| 1 | 2.36 | 2.65 | 6.33 | 3.68 | 2.93 | 3.40 | 5.68 | 3.71 | 3.19 | 3.21 | 3.00 | 3.31 |
| 2 | 2.36 | 2.70 | 4.42 | 3.67 | 2.93 | 4.00 | 5.69 | 3.61 | 3.18 | 3.22 | 3.00 | 3.29 |
| 3 | 2.38 | 2.68 | 3.78 | 3.67 | 2.84 | 3.52 | 5.69 | 3.51 | 3.10 | 3.22 | 3.50 | 3.28 |
| 4 | 2.32 | 2.67 | 3.70 | 3.41 | 2.71 | 3.76 | 5.66 | 3.41 | 3.10 | 3.22 | 3.41 | 6.07 |
| 5 | 2.32 | 2.67 | 3.70 | 3.33 | 2.70 | 3.52 | 4.38 | 3.41 | 3.11 | 3.21 | 3.10 | 5.63 |
| 6 | 2.30 | 2.69 | 3.84 | 3.30 | 2.70 | 3.62 | 4.32 | 3.41 | 3.13 | 3.20 | 3.00 | 4.28 |
| 7 | 2.31 | 3.72 | 3.84 | 2.91 | 2.68 | 3.72 | 4.32 | 3.31 | 3.12 | 3.21 | 3.00 | 4.22 |
| 8 | 2.31 | 3.40 | 3.93 | 2.88 | 2.69 | 4.00 | 4.61 | 3.31 | 3.13 | 3.22 | 2.91 | 3.10 |
| 9 | 2.33 | 3.78 | 6.40 | 2.80 | 2.68 | 3.82 | 4.60 | 3.21 | 3.11 | 3.22 | 2.91 | 3.14 |
| 10 | 2.34 | 4.37 | 4.30 | 2.74 | 2.68 | 3.62 | 4.74 | 3.21 | 3.11 | 3.23 | 2.91 | 3.14 |
| 11 | 2.34 | 3.39 | 4.40 | 2.79 | 2.67 | 3.52 | 3.61 | 3.21 | 3.14 | 2.51 | 2.91 | 3.14 |
| 12 | 2.42 | 3.33 | 4.58 | 5.45 | 2.53 | 3.62 | 3.71 | 3.21 | 3.13 | 2.61 | 2.91 | 3.15 |
| 13 | 4.38 | 11.35 | 4.58 | 5.92 | 2.58 | 4.62 | 3.71 | 3.21 | 3.14 | 2.81 | 2.81 | 3.25 |
| 14 | 3.72 | 5.68 | 3.98 | 4.39 | 2.59 | 4.00 | 3.91 | 3.11 | 3.15 | 2.71 | 2.81 | 3.25 |
| 15 | 2.91 | 4.58 | 3.93 | 3.58 | 2.71 | 3.82 | 4.38 | 3.21 | 3.16 | 2.61 | 2.81 | 3.19 |
| 16 | 2.90 | 3.33 | 4.38 | 3.92 | 2.70 | 3.92 | 4.32 | 3.11 | 3.16 | 2.61 | 2.81 | 3.23 |
| 17 | 2.90 | 3.41 | 4.40 | 3.00 | 2.68 | 3.88 | 3.81 | 3.11 | 3.19 | 2.61 | 2.81 | 3.24 |
| 18 | 2.83 | 3.48 | 3.99 | 3.54 | 2.67 | 3.89 | 3.71 | 3.21 | 3.20 | 2.61 | 2.81 | 3.21 |
| 19 | 2.82 | 3.48 | 3.98 | 3.50 | 2.64 | 3.84 | 3.51 | 3.22 | 3.20 | 2.51 | 2.81 | 3.21 |
| 20 | 2.81 | 3.52 | 3.98 | 4.38 | 2.81 | 4.48 | 3.51 | 3.28 | 3.21 | 2.51 | 2.81 | 3.92 |
| 21 | 2.82 | 3.58 | 3.90 | 3.49 | 2.90 | 4.67 | 3.41 | 3.28 | 3.22 | 2.59 | 3.00 | 5.68 |
| 22 | 2.85 | 3.58 | 3.90 | 3.48 | 2.90 | 4.93 | 3.51 | 3.29 | 3.21 | 2.61 | 3.00 | 4.91 |
| 23 | 2.87 | 3.62 | 3.94 | 3.48 | 3.35 | 5.41 | 3.71 | 3.28 | 3.20 | 3.61 | 2.81 | 3.72 |
| 24 | 2.72 | 3.69 | 3.93 | 3.40 | 4.50 | 5.40 | 3.71 | 3.27 | 3.22 | 6.71 | 2.81 | 3.69 |
| 25 | 2.75 | 3.63 | 3.90 | 3.40 | 4.48 | 5.40 | 3.41 | 3.27 | 3.22 | 5.21 | 3.61 | 3.68 |
| 26 | 2.78 | 3.60 | 3.90 | 3.32 | 4.47 | 5.91 | 3.71 | 3.22 | 3.21 | 3.71 | 4.81 | 3.65 |
| 27 | 2.78 | 3.90 | 3.82 | 3.33 | 4.43 | 5.90 | 3.61 | 3.20 | 3.23 | 3.51 | 4.00 | 3.65 |
| 28 | 2.73 | 3.80 | 3.80 | 3.29 | 3.30 | 5.88 | 4.31 | 3.21 | 3.20 | 2.51 | 3.01 | 3.65 |
| 29 | 2.72 | ------- | 3.84 | 3.28 | 3.40 | 5.83 | 4.00 | 3.21 | 3.21 | 3.31 | 3.51 | 3.92 |
| 30 | 2.69 | ------- | 3.84 | 3.28 | 3.40 | 5.71 | 3.91 | 3.23 | 3.22 | 3.30 | 3.51 | 3.48 |
| 31 | 2.69 | ------- | 3.71 | ------- | 3.40 | ------- | 3.71 | 3.23 | ------- | 3.30 | ------ | 3.43 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1901 AND 1902.

| 1901. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.43 | 3.59 | 3.22 | 4.32 | 3.48 | 4.61 | 3.35 | 3.50 | 4.39 | 3.21 | 3.10 | 2.78 |
| 2 | 3.57 | 3.59 | 3.21 | 8.40 | 3.46 | 3.92 | 3.28 | 3.40 | 4.26 | 3.19 | 3.11 | 2.79 |
| 3 | 3.59 | 3.62 | 3.18 | 6.33 | 3.46 | 3.80 | 3.30 | 3.50 | 3.72 | 3.19 | 2.98 | 2.79 |
| 4 | 3.63 | 4.32 | 3.19 | 5.44 | 3.39 | 3.78 | 4.61 | 3.11 | 3.72 | 3.16 | 2.99 | 2.78 |
| 5 | 3.68 | 4.23 | 3.19 | 4.62 | 3.38 | 3.78 | 4.28 | 3.10 | 3.61 | 3.13 | 2.98 | 2.76 |
| 6 | 3.69 | 3.84 | 3.17 | 4.28 | 3.36 | 3.64 | 3.96 | 4.63 | 3.60 | 3.15 | 2.98 | 2.76 |
| 7 | 3.60 | 3.61 | 3.18 | 4.26 | 3.36 | 3.62 | 3.82 | 7.32 | 3.58 | 3.14 | 2.94 | 2.75 |
| 8 | 3.60 | 3.57 | 3.18 | 4.25 | 3.34 | 3.60 | 4.36 | 6.28 | 3.49 | 3.14 | 2.94 | 2.74 |
| 9 | 3.58 | 3.58 | 3.45 | 4.90 | 3.35 | 3.54 | 3.91 | 4.23 | 3.47 | 3.80 | 2.94 | 2.75 |
| 10 | 5.62 | 3.56 | 5.39 | 3.84 | 3.29 | 3.53 | 3.79 | 3.71 | 3.42 | 3.70 | 2.96 | 3.49 |
| 11 | 8.40 | 3.56 | 5.80 | 3.83 | 3.29 | 3.53 | 3.76 | 3.98 | 3.42 | 3.40 | 2.94 | 5.92 |
| 12 | 5.30 | 3.42 | 4.39 | 3.81 | 3.26 | 3.51 | 3.54 | 3.94 | 3.40 | 4.51 | 2.93 | 3.51 |
| 13 | 4.31 | 3.42 | 4.20 | 4.53 | 3.25 | 3.49 | 3.42 | 6.40 | 3.31 | 3.64 | 2.93 | 3.48 |
| 14 | 4.31 | 3.40 | 3.61 | 4.28 | 3.25 | 4.72 | 3.39 | 7.15 | 3.30 | 3.34 | 2.90 | 4.64 |
| 15 | 3.42 | 3.32 | 3.42 | 4.22 | 3.26 | 6.41 | 3.38 | 7.28 | 3.28 | 3.31 | 2.90 | 13.59 |
| 16 | 3.41 | 3.33 | 3.40 | 3.96 | 3.23 | 5.33 | 3.38 | 6.39 | 3.28 | 3.28 | 2.89 | 8.42 |
| 17 | 3.38 | 3.38 | 3.39 | 3.84 | 2.23 | 5.31 | 3.36 | 9.54 | 3.24 | 3.22 | 2.87 | 6.38 |
| 18 | 3.21 | 3.37 | 3.39 | 3.82 | 3.19 | 4.96 | 3.33 | 6.42 | 3.25 | 3.22 | 2.87 | 4.22 |
| 19 | 3.22 | 3.37 | 3.37 | 5.00 | 4.28 | 4.92 | 3.29 | 5.38 | 3.23 | 3.21 | 2.84 | 4.23 |
| 20 | 3.20 | 3.38 | 3.33 | 8.46 | 12.32 | 4.83 | 3.22 | 4.93 | 3.21 | 3.19 | 2.83 | 4.21 |
| 21 | 3.18 | 3.38 | 4.53 | 6.38 | 8.46 | 4.61 | 3.21 | 4.84 | 3.21 | 3.19 | 2.85 | 4.19 |
| 22 | 3.18 | 3.38 | 4.39 | 5.46 | 5.39 | 4.34 | 3.21 | 4.83 | 3.23 | 3.18 | 2.84 | 3.91 |
| 23 | 3.18 | 3.27 | 3.78 | 4.93 | 4.93 | 4.28 | 3.20 | 10.32 | 3.25 | 3.14 | 2.96 | 3.92 |
| 24 | 3.21 | 3.22 | 3.46 | 4.61 | 4.68 | 4.21 | 3.18 | 6.40 | 3.25 | 3.13 | 2.88 | 3.98 |
| 25 | 3.19 | 3.21 | 3.41 | 4.45 | 4.23 | 3.94 | 3.14 | 5.32 | 3.24 | 3.13 | 2.86 | 3.93 |
| 26 | 3.18 | 3.21 | 10.54 | 3.93 | 4.19 | 3.65 | 3.11 | 5.28 | 3.22 | 3.13 | 2.86 | 3.90 |
| 27 | 3.92 | 3.23 | 8.40 | 3.82 | 4.19 | 3.62 | 3.11 | 4.73 | 3.22 | 3.14 | 2.85 | 3.81 |
| 28 | 3.98 | 3.22 | 5.33 | 3.61 | 4.13 | 3.48 | 3.90 | 7.39 | 3.23 | 3.13 | 2.86 | 5.31 |
| 29 | 3.69 | ..... | 4.09 | 3.60 | 4.12 | 3.34 | 3.90 | 7.42 | 3.22 | 3.12 | 2.84 | 13.92 |
| 30 | 3.69 | ..... | 4.15 | 3.54 | 4.12 | 3.34 | 3.60 | 6.51 | 3.22 | 3.11 | 2.81 | 12.28 |
| 31 | 3.67 | ..... | 4.20 | ..... | 5.08 | ..... | 3.50 | 5.41 | ..... | 3.11 | ..... | 10.92 |
| 1902. | | | | | | | | | | | | |
| 1 | 8.41 | 6.72 | 7.29 | 4.92 | 3.24 | 3.20 | 2.91 | 2.71 | 2.51 | 3.00 | 2.61 | 3.35 |
| 2 | 6.51 | 5.38 | 5.32 | 4.84 | 4.61 | 3.41 | 2.91 | 2.71 | 2.41 | 2.91 | 2.71 | 3.32 |
| 3 | 6.34 | 4.92 | 4.96 | 4.34 | 3.22 | 3.31 | 3.00 | 2.71 | 2.41 | 2.81 | 2.61 | 4.90 |
| 4 | 5.28 | 4.92 | 4.94 | 4.31 | 3.18 | 3.10 | 2.81 | 2.61 | 2.91 | 2.71 | 2.51 | 3.15 |
| 5 | 4.49 | 4.91 | 4.81 | 4.23 | 3.10 | 3.08 | 3.81 | 2.61 | 2.71 | 2.91 | 2.61 | 3.10 |
| 6 | 4.48 | 4.86 | 4.81 | 4.21 | 4.26 | 3.05 | 2.81 | 2.51 | 2.51 | 2.91 | 4.71 | 3.74 |
| 7 | 4.48 | 4.42 | 4.78 | 4.19 | 3.92 | 3.10 | 2.81 | 2.61 | 2.51 | 2.81 | 3.41 | 3.45 |
| 8 | 4.46 | 4.50 | 5.21 | 4.19 | 3.17 | 3.31 | 2.81 | 2.51 | 2.51 | 2.71 | 3.00 | 3.41 |
| 9 | 4.52 | 4.60 | 4.19 | 4.12 | 2.94 | 3.10 | 3.00 | 2.51 | 2.81 | 2.71 | 2.91 | 3.35 |
| 10 | 4.51 | 4.50 | 4.12 | 4.90 | 2.91 | 3.05 | 3.00 | 2.61 | 2.51 | 2.61 | 2.81 | 3.26 |
| 11 | 4.43 | 4.20 | 4.13 | 4.90 | 2.93 | 3.04 | 3.10 | 2.51 | 2.71 | 2.71 | 2.81 | 3.20 |
| 12 | 4.42 | 4.20 | 4.13 | 4.60 | 2.91 | 3.03 | 3.51 | 2.51 | 2.61 | 3.41 | 2.81 | 3.35 |
| 13 | 4.39 | 4.10 | 4.10 | 4.80 | 3.61 | 3.00 | 3.31 | 2.41 | 2.61 | 3.00 | 2.81 | 3.30 |
| 14 | 4.32 | 3.98 | 4.10 | 4.70 | 3.71 | 3.20 | 2.91 | 2.51 | 3.10 | 3.10 | 2.71 | 3.25 |
| 15 | 4.28 | 3.96 | 4.12 | 4.60 | 3.61 | 3.20 | 3.91 | 2.51 | 2.71 | 2.91 | 2.71 | 3.15 |
| 16 | 4.24 | 4.21 | 5.39 | 4.30 | 3.51 | 3.20 | 2.81 | 2.71 | 2.61 | 2.81 | 2.70 | 3.25 |
| 17 | 4.22 | 4.28 | 4.72 | 4.28 | 3.51 | 3.10 | 2.71 | 2.71 | 2.51 | 2.81 | 2.76 | 4.60 |
| 18 | 3.91 | 4.27 | 4.68 | 4.92 | 3.51 | 2.91 | 2.71 | 2.51 | 2.51 | 2.71 | 2.70 | 4.00 |
| 19 | 3.92 | 4.22 | 4.22 | 4.61 | 3.41 | 3.00 | 2.81 | 2.51 | 2.91 | 2.71 | 2.70 | 3.85 |
| 20 | 3.96 | 3.93 | 4.15 | 5.20 | 3.41 | 3.01 | 3.10 | 2.41 | 3.31 | 2.71 | 2.80 | 3.71 |
| 21 | 4.51 | 3.93 | 3.96 | 4.42 | 3.41 | 3.31 | 2.91 | 2.41 | 3.00 | 2.71 | 2.80 | 3.75 |
| 22 | 3.68 | 3.91 | 3.91 | 4.19 | 3.51 | 3.20 | 2.70 | 2.51 | 2.91 | 2.61 | 2.75 | 4.70 |
| 23 | 3.62 | 3.86 | 3.82 | 4.30 | 3.41 | 3.00 | 2.71 | 2.51 | 2.71 | 2.61 | 2.86 | 4.10 |
| 24 | 3.53 | 4.17 | 3.82 | 3.96 | 3.31 | 2.91 | 2.61 | 2.61 | 2.71 | 2.61 | 2.70 | 3.95 |
| 25 | 4.21 | 4.16 | 3.68 | 3.91 | 3.31 | 2.91 | 2.61 | 2.41 | 4.10 | 2.61 | 3.55 | 3.76 |
| 26 | 4.19 | 4.19 | 3.67 | 3.68 | 3.31 | 3.10 | 2.61 | 2.51 | 3.71 | 2.71 | 4.30 | 3.65 |
| 27 | 4.16 | 5.22 | 3.54 | 3.51 | 3.21 | 3.20 | 2.71 | 2.71 | 3.31 | 2.61 | 3.35 | 3.27 |
| 28 | 5.91 | 16.19 | 4.91 | 3.10 | 3.21 | 3.00 | 2.61 | 2.61 | 3.20 | 2.71 | 3.31 | 3.25 |
| 29 | 5.84 | ..... | 9.32 | 3.10 | 3.21 | 3.10 | 2.71 | 2.61 | 3.40 | 2.61 | 3.30 | 3.50 |
| 30 | 4.36 | ..... | 6.28 | 2.98 | 3.20 | 3.00 | 2.71 | 2.51 | 3.30 | 2.61 | 3.20 | 4.00 |
| 31 | 4.33 | ..... | 5.49 | ..... | 3.20 | ..... | 2.61 | 2.61 | ..... | 2.61 | ..... | 3.51 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1903 AND 1904.

| 1903. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.41 | 3.54 | 9.63 | 7.10 | 4.00 | 4.60 | 3.25 | 2.80 | 2.55 | 2.32 | 2.38 | 2.38 |
| 2 | 3.55 | 3.60 | 6.92 | 7.15 | 3.95 | 4.55 | 3.25 | 4.35 | 2.95 | 2.32 | 2.40 | 2.30 |
| 3 | 4.02 | 3.66 | 5.93 | 6.90 | 3.90 | 4.55 | 3.25 | 3.90 | 2.55 | 2.31 | 2.65 | 2.25 |
| 4 | 4.08 | 5.82 | 4.98 | 6.75 | 4.15 | 4.50 | 3.50 | 3.10 | 2.50 | 2.35 | 2.60 | 2.28 |
| 5 | 3.90 | 4.73 | 4.65 | 6.65 | 3.95 | 5.70 | 3.25 | 3.10 | 2.60 | 2.30 | 2.98 | 2.40 |
| 6 | 3.70 | 4.73 | 5.39 | 8.70 | 3.85 | 5.65 | 3.35 | 3.00 | 2.50 | 2.32 | 2.75 | 2.42 |
| 7 | 3.65 | 5.41 | 5.52 | 7.95 | 3.85 | 4.72 | 3.35 | 2.90 | 2.45 | 2.33 | 2.52 | 2.30 |
| 8 | 3.62 | 4.89 | 7.27 | 7.20 | 3.80 | 3.90 | 3.40 | 2.80 | 2.40 | 2.40 | 2.48 | 2.28 |
| 9 | 3.30 | 4.82 | 6.53 | 6.50 | 3.75 | 3.85 | 3.30 | 2.75 | 2.45 | 2.35 | 2.45 | 2.40 |
| 10 | 3.35 | 4.90 | 7.39 | 5.90 | 3.70 | 3.85 | 3.25 | 2.75 | 2.50 | 2.33 | 2.40 | 2.42 |
| 11 | 3.45 | 5.41 | 6.80 | 4.75 | 3.70 | 4.95 | 3.60 | 2.80 | 2.40 | 2.35 | 2.42 | 2.22 |
| 12 | 4.35 | 6.40 | 6.72 | 4.65 | 3.70 | 4.36 | 3.80 | 2.85 | 2.45 | 2.37 | 2.53 | 2.22 |
| 13 | 3.00 | 5.29 | 5.93 | 5.85 | 3.65 | 4.20 | 3.75 | 2.75 | 2.40 | 2.36 | 2.55 | 2.62 |
| 14 | 3.65 | 4.96 | 5.71 | 6.55 | 3.60 | 4.10 | 3.60 | 2.70 | 2.40 | 2.40 | 2.52 | 2.70 |
| 15 | 3.55 | 4.31 | 6.42 | 5.50 | 3.60 | 3.90 | 3.35 | 2.80 | 2.75 | 2.32 | 2.50 | 2.50 |
| 16 | 3.50 | 4.30 | 5.18 | 5.45 | 3.60 | 3.80 | 3.20 | 3.50 | 3.60 | 2.33 | 2.45 | 2.38 |
| 17 | 3.48 | 5.73 | 4.98 | 4.95 | 3.70 | 3.65 | 3.35 | 3.95 | 2.60 | 2.48 | 3.25 | 2.35 |
| 18 | 3.45 | 4.98 | 4.93 | 4.75 | 3.70 | 3.60 | 3.25 | 3.00 | 2.55 | 2.72 | 3.35 | 2.22 |
| 19 | 3.43 | 4.81 | 4.80 | 4.53 | 3.70 | 3.55 | 3.15 | 2.80 | 2.50 | 2.50 | 3.32 | 2.25 |
| 20 | 3.40 | 4.72 | 4.73 | 4.53 | 3.60 | 3.55 | 3.10 | 2.80 | 2.50 | 2.40 | 2.60 | 2.82 |
| 21 | 3.42 | 4.36 | 5.29 | 4.45 | 3.55 | 3.55 | 3.00 | 2.70 | 2.45 | 2.35 | 2.52 | 3.05 |
| 22 | 3.40 | 4.31 | 6.03 | 4.44 | 3.55 | 3.45 | 3.50 | 2.65 | 2.45 | 2.32 | 2.50 | 2.75 |
| 23 | 3.41 | 4.22 | 10.28 | 4.44 | 3.50 | 3.40 | 3.00 | 2.65 | 2.40 | 2.33 | 2.48 | 2.68 |
| 24 | 3.49 | 4.22 | 8.92 | 4.44 | 3.45 | 3.35 | 2.95 | 2.60 | 2.40 | 2.33 | 2.45 | 2.55 |
| 25 | 3.60 | 5.46 | 6.29 | 4.43 | 3.45 | 3.35 | 2.90 | 2.60 | 2.38 | 2.38 | 2.42 | 2.60 |
| 26 | 3.61 | 5.72 | 6.20 | 4.47 | 3.30 | 4.25 | 2.85 | 2.55 | 2.39 | 2.30 | 2.42 | 3.00 |
| 27 | 3.54 | 6.29 | 5.64 | 4.46 | 3.20 | 4.15 | 2.85 | 2.55 | 2.36 | 2.30 | 2.38 | 2.45 |
| 28 | 3.58 | 10.63 | 5.10 | 4.20 | 3.20 | 3.50 | 2.80 | 2.50 | 2.37 | 2.38 | 2.23 | 2.68 |
| 29 | 3.57 | ------- | 5.60 | 4.10 | 3.80 | 3.30 | 3.00 | 2.50 | 2.35 | 2.34 | 2.50 | 2.56 |
| 30 | 3.58 | ------- | 5.60 | 4.00 | 3.90 | 3.20 | 2.95 | 2.55 | 2.33 | 2.35 | 2.42 | 2.50 |
| 31 | 3.59 | ------- | 6.65 | ------- | 3.90 | ------- | 3.10 | 2.50 | ------- | 2.36 | ------ | 2.43 |
| 1904. | | | | | | | | | | | | |
| 1 | 2.50 | 2.65 | 3.14 | 3.50 | 3.25 | 3.30 | 2.80 | 2.75 | 3.00 | 2.20 | 2.10 | 2.90 |
| 2 | 2.52 | 2.61 | 3.08 | 3.50 | 3.15 | 3.20 | 2.75 | 2.80 | 3.10 | 2.20 | 2.30 | 2.80 |
| 3 | 2.48 | 2.63 | 2.98 | 3.55 | 3.15 | 3.05 | 2.55 | 2.85 | 2.80 | 2.20 | 2.50 | 2.60 |
| 4 | 2.42 | 2.48 | 3.09 | 3.40 | 3.20 | 2.95 | 2.50 | 2.75 | 3.00 | 2.20 | 2.60 | 2.60 |
| 5 | 2.39 | 2.34 | 3.13 | 3.40 | 3.20 | 2.85 | 2.80 | 2.70 | 3.20 | 2.30 | 2.50 | 4.10 |
| 6 | 2.43 | 3.18 | 4.20 | 3.35 | 3.25 | 2.80 | 2.60 | 2.95 | 2.80 | 2.20 | 2.30 | 3.60 |
| 7 | 2.55 | 3.30 | 6.25 | 3.85 | (*) | 3.25 | 2.50 | 2.75 | 2.70 | 2.20 | 2.20 | 2.80 |
| 8 | 2.52 | 3.32 | 5.15 | 4.00 | (*) | 3.30 | 2.50 | 3.10 | 2.70 | 2.20 | 2.20 | 2.70 |
| 9 | 2.48 | 3.34 | 4.40 | 3.90 | (*) | 3.00 | 3.25 | 3.30 | 2.60 | 2.20 | 2.20 | 2.70 |
| 10 | 2.45 | 3.28 | 4.19 | 3.65 | (*) | 2.90 | 2.75 | 3.20 | 2.60 | 2.20 | 2.20 | 2.70 |
| 11 | 2.65 | 3.20 | 4.65 | 3.60 | (*) | 2.90 | 2.65 | 4.45 | 2.60 | 2.20 | 2.20 | 2.60 |
| 12 | 2.58 | 2.81 | 4.25 | 3.60 | (*) | 2.90 | 2.65 | 3.70 | 2.50 | 2.20 | 2.60 | 2.60 |
| 13 | 2.59 | 2.81 | 4.10 | 3.55 | (*) | 2.80 | 2.85 | 3.45 | 2.50 | 2.10 | 2.60 | 2.50 |
| 14 | 2.52 | 3.48 | 3.90 | 3.55 | 3.30 | 2.75 | 2.60 | 3.10 | 2.50 | 2.10 | 2.60 | 2.50 |
| 15 | 2.45 | 3.51 | 3.95 | 3.50 | 3.25 | 2.80 | 2.50 | 2.90 | 2.50 | 2.10 | 2.30 | 2.50 |
| 16 | 3.28 | 3.22 | 3.85 | 3.45 | 3.20 | 2.65 | 2.45 | 2.85 | 2.50 | 2.10 | 2.30 | 2.50 |
| 17 | 3.35 | 3.30 | 3.85 | 3.40 | 3.10 | 2.65 | 2.70 | 2.75 | 2.40 | 2.10 | 2.30 | 2.55 |
| 18 | 3.22 | 3.28 | 3.80 | 3.35 | 3.15 | 2.75 | 2.80 | 2.70 | 2.40 | 2.10 | 2.20 | 2.45 |
| 19 | 3.18 | 3.30 | 3.70 | 3.45 | 3.15 | 2.70 | 2.50 | 2.65 | 2.40 | 2.10 | 2.20 | 2.35 |
| 20 | 2.84 | 3.80 | 3.65 | 3.40 | 3.10 | 2.90 | 2.45 | 2.60 | 2.40 | 2.10 | 2.20 | 2.10 |
| 21 | 2.58 | 4.24 | 3.60 | 3.35 | 3.10 | 2.90 | 2.50 | 2.70 | 2.30 | 2.10 | 2.40 | 2.35 |
| 22 | 5.30 | 5.38 | 4.72 | 3.30 | 3.05 | 3.00 | 3.00 | 2.65 | 2.40 | 2.10 | 2.60 | 2.35 |
| 23 | 4.28 | 4.47 | 5.66 | 3.30 | 2.95 | 2.80 | 2.80 | 2.55 | 2.40 | 2.10 | 2.50 | 2.50 |
| 24 | 3.22 | 4.13 | 5.12 | 3.25 | 2.90 | 2.70 | 2.70 | 2.90 | 2.30 | 2.10 | 2.30 | 2.50 |
| 25 | 3.18 | 3.91 | 4.40 | 3.25 | 2.90 | 2.70 | 2.60 | 2.80 | 2.30 | 2.10 | 2.30 | 2.95 |
| 26 | 2.59 | 3.63 | 4.10 | 3.20 | 2.95 | 2.80 | 2.50 | 3.00 | 2.30 | 2.10 | 2.20 | 2.80 |
| 27 | 2.50 | 3.31 | 3.45 | 3.20 | 2.95 | 2.90 | 2.65 | 3.70 | 2.30 | 2.10 | 2.20 | 2.70 |
| 28 | 2.42 | 3.14 | 3.45 | 3.15 | 2.90 | 2.70 | 2.60 | 3.50 | 2.40 | 2.10 | 2.60 | 4.70 |
| 29 | 2.45 | 3.10 | 3.40 | 3.15 | 2.85 | 3.20 | 2.55 | 2.90 | 2.40 | 2.10 | 2.80 | 3.70 |
| 30 | 2.81 | ------- | 3.45 | 3.20 | 2.90 | 2.85 | 2.50 | 2.65 | 2.30 | 2.10 | 2.50 | 3.30 |
| 31 | 2.71 | ------- | 3.40 | ------- | 3.50 | ------- | 2.45 | 2.70 | ------- | 2.10 | ------ | 3.10 |

*Chain stolen.

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.95 | 3.00 | 3.90 | 3.35 | 4.10 | 3.40 | 3.15 | 3.00 | 2.40 | 2.50 | 2.55 | 2.65 |
| 2 | 2.90 | 3.00 | 3.90 | 3.30 | 3.65 | 3.40 | 3.20 | 2.60 | 3.20 | 2.55 | 2.50 | 2.55 |
| 3 | 2.10 | 2.90 | 3.70 | 3.25 | ..... | 3.35 | 3.00 | 3.00 | 2.40 | 2.65 | 2.50 | 8.00 |
| 4 | 2.80 | 2.90 | 3.50 | 3.25 | ..... | 3.25 | 2.90 | 3.50 | 3.00 | 3.50 | 2.50 | 3.85 |
| 5 | 2.70 | 2.75 | 3.40 | 3.25 | ..... | 3.30 | 2.85 | 2.60 | 2.90 | 2.75 | 2.50 | 3.50 |
| 6 | 3.00 | 3.90 | 3.50 | 3.50 | ..... | 3.25 | 2.90 | 3.50 | 2.85 | 2.60 | 2.50 | 3.30 |
| 7 | 3.95 | 3.55 | 3.40 | 3.35 | 4.20 | 3.15 | 3.20 | 2.90 | 2.90 | 2.50 | 2.50 | 4.80 |
| 8 | 3.10 | 3.45 | 3.50 | 3.30 | 4.00 | 3.25 | 2.75 | 2.25 | 2.80 | 2.50 | 2.50 | 3.40 |
| 9 | 2.70 | 8.00 | 3.40 | 3.40 | 4.00 | 3.10 | 2.90 | 3.50 | 2.80 | 2.50 | 2.50 | 6.90 |
| 10 | 3.10 | 5.10 | 4.30 | 3.45 | 3.60 | 3.10 | 3.00 | 3.35 | 2.75 | 2.60 | 2.50 | 6.00 |
| 11 | 3.10 | 4.40 | 4.20 | 3.45 | 3.50 | 3.10 | 4.30 | 4.40 | 2.25 | 3.85 | 2.45 | 4.80 |
| 12 | 8.20 | 4.00 | 4.10 | 3.85 | 3.45 | 3.15 | 7.60 | 6.10 | 2.90 | 3.60 | 2.45 | 4.20 |
| 13 | 6.30 | 4.90 | 4.00 | 3.90 | 3.45 | 3.10 | 5.80 | 3.80 | 2.80 | 3.65 | 2.45 | 3.95 |
| 14 | 4.80 | 4.70 | 3.90 | 4.20 | 3.35 | 3.00 | 4.40 | 3.75 | 2.45 | 2.90 | 2.45 | 3.80 |
| 15 | 4.10 | 4.30 | 3.60 | 3.40 | 3.35 | 3.00 | 4.40 | 3.95 | 2.45 | 2.75 | 2.40 | 3.90 |
| 16 | 3.55 | 3.80 | 3.60 | 3.60 | 4.80 | 3.10 | 4.30 | 3.40 | 2.70 | 2.80 | 2.40 | 3.90 |
| 17 | 3.45 | 4.00 | 3.50 | 3.45 | 4.10 | 3.20 | 4.00 | 3.55 | 2.70 | 2.70 | 2.40 | 3.85 |
| 18 | 3.50 | 3.80 | 3.50 | 3.35 | 4.00 | 3.10 | 3.60 | 3.45 | 2.65 | 2.60 | 2.40 | 3.65 |
| 19 | 3.40 | 3.70 | 3.45 | 3.35 | 3.60 | 3.40 | 3.90 | 3.10 | 2.65 | 2.60 | 2.40 | 3.50 |
| 20 | 3.35 | 4.00 | 3.45 | 3.25 | 3.50 | 3.15 | 3.60 | 3.10 | 2.65 | 2.60 | 3.00 | 4.70 |
| 21 | 3.30 | 6.80 | 4.40 | 3.25 | 3.50 | 3.20 | 3.30 | 3.00 | 2.70 | 2.60 | 2.70 | 3.35 |
| 22 | 3.20 | 5.80 | 4.10 | 3.35 | 3.50 | 3.35 | 3.30 | 3.35 | 2.60 | 2.60 | 2.50 | 3.35 |
| 23 | 3.10 | 5.10 | 4.10 | 3.25 | 3.50 | 3.85 | 3.35 | 3.70 | 2.60 | 2.55 | 2.50 | 4.50 |
| 24 | 3.00 | 4.80 | 3.80 | 3.15 | 4.00 | 3.20 | 3.05 | 3.75 | 2.50 | 2.50 | 2.50 | 4.80 |
| 25 | 2.95 | 4.40 | 3.65 | 3.10 | 3.50 | 2.75 | 3.20 | 3.10 | 2.50 | 2.55 | 2.50 | 4.40 |
| 26 | 2.95 | 4.20 | 3.50 | 3.20 | 3.50 | 3.00 | 4.30 | 3.40 | 2.50 | 3.00 | 2.65 | 4.10 |
| 27 | 2.90 | 4.10 | 3.45 | 3.60 | 4.50 | 3.20 | 3.00 | 3.30 | 2.50 | 3.80 | 2.50 | 3.90 |
| 28 | 2.85 | 3.90 | 3.45 | 3.45 | 3.45 | 3.25 | 2.95 | 3.30 | 2.50 | 2.60 | 2.45 | 3.80 |
| 29 | 2.85 | ..... | 3.30 | 3.40 | 3.95 | 2.90 | 3.95 | 3.80 | 2.50 | 2.60 | 2.65 | 4.10 |
| 30 | 3.00 | ..... | 3.50 | 4.60 | 3.95 | 3.00 | 3.85 | 3.10 | 2.45 | 2.55 | 2.90 | 3.80 |
| 31 | 2.90 | ..... | 3.40 | ..... | 3.95 | ..... | 3.85 | 3.00 | ..... | 2.55 | ..... | 3.75 |
| 1906. | | | | | | | | | | | | |
| 1 | 3.75 | 4.50 | 3.70 | 5.10 | 4.00 | 4.60 | 3.40 | 4.70 | 5.10 | 9.40 | 3.85 | 4.15 |
| 2 | 3.30 | 4.40 | 3.60 | 4.80 | 4.10 | 4.60 | 3.30 | 4.75 | 5.20 | 7.60 | 3.80 | 4.10 |
| 3 | 3.55 | 4.20 | 3.75 | 4.55 | 4.10 | 3.65 | 3.30 | 4.45 | 4.10 | 8.00 | 3.80 | 4.05 |
| 4 | 4.30 | 4.20 | 3.75 | 4.40 | 4.10 | 3.60 | 4.60 | 5.00 | 4.15 | 8.00 | 3.80 | 4.00 |
| 5 | 8.00 | 4.20 | 4.20 | 4.30 | 4.10 | 3.65 | 3.90 | 4.50 | 4.25 | 7.00 | 3.75 | 3.90 |
| 6 | 6.00 | 4.10 | 3.95 | 4.25 | 3.75 | 3.90 | 4.60 | 4.95 | 4.40 | 7.90 | 3.70 | 4.00 |
| 7 | 4.70 | 4.00 | 3.80 | 4.15 | 3.20 | 3.50 | 3.95 | 4.55 | 4.40 | 6.90 | 3.65 | 4.20 |
| 8 | 4.50 | 4.00 | 3.95 | 4.15 | 3.85 | 3.40 | 3.95 | 4.25 | 4.50 | 6.00 | 3.60 | 3.90 |
| 9 | 4.60 | 3.90 | 3.90 | 4.00 | 3.75 | 3.30 | 3.80 | 4.00 | 4.25 | 5.70 | 3.60 | 3.90 |
| 10 | 4.25 | 3.80 | 3.80 | 5.00 | 3.65 | 3.20 | 3.80 | 4.00 | 4.00 | 5.50 | 3.60 | 3.90 |
| 11 | 4.10 | 3.80 | 3.70 | 4.55 | 3.20 | 3.20 | 3.65 | 4.00 | 3.90 | 5.20 | 3.80 | 4.80 |
| 12 | 4.75 | 3.80 | 3.60 | 4.50 | 3.10 | 3.40 | 3.90 | 4.80 | 4.50 | 5.00 | 3.75 | 4.30 |
| 13 | 4.40 | 3.80 | 3.60 | 4.20 | 3.60 | 3.80 | 3.80 | 4.85 | 3.20 | 4.90 | 3.50 | 4.10 |
| 14 | 4.40 | 3.80 | 3.60 | 4.15 | 3.50 | 5.00 | 6.10 | 4.85 | 3.90 | 4.80 | 3.55 | 4.00 |
| 15 | 4.30 | 3.70 | 4.80 | 5.00 | 3.35 | 5.30 | 6.30 | 4.25 | 3.80 | 4.70 | 3.60 | 3.95 |
| 16 | 4.30 | 3.60 | 5.60 | 5.00 | 3.40 | 5.10 | 6.30 | 5.50 | 3.75 | 4.60 | 3.50 | 3.75 |
| 17 | 4.40 | 3.55 | 4.60 | 4.90 | 3.35 | 4.60 | 6.30 | 4.00 | 3.60 | 4.50 | 3.60 | 4.10 |
| 18 | 4.40 | 3.65 | 4.25 | 4.65 | 3.25 | 4.20 | 6.80 | 4.40 | 3.50 | 4.45 | 5.40 | 5.30 |
| 19 | 4.10 | 3.65 | 4.45 | 4.65 | 3.30 | 4.00 | 5.00 | 4.50 | 7.10 | 5.50 | 13.50 | 4.70 |
| 20 | 4.00 | 3.50 | 6.00 | 4.45 | 3.30 | 3.90 | 3.15 | 4.50 | 6.60 | 4.80 | 7.70 | 4.70 |
| 21 | 4.00 | 3.50 | 5.10 | 4.15 | 3.30 | 3.75 | 6.20 | 4.75 | 5.80 | 4.60 | 6.10 | 4.50 |
| 22 | 4.70 | 3.90 | 5.70 | 4.20 | 3.25 | 3.70 | 5.40 | 4.10 | 5.00 | 4.50 | 5.50 | 4.50 |
| 23 | 9.00 | 3.60 | 4.45 | 4.10 | 3.20 | 5.50 | 4.20 | 4.10 | 5.00 | 4.40 | 5.10 | 4.20 |
| 24 | 7.00 | 3.50 | 4.30 | 4.00 | 3.10 | 4.40 | 4.85 | 5.20 | 4.90 | 4.30 | 4.90 | 4.10 |
| 25 | 5.90 | 3.60 | 4.30 | 4.00 | 3.15 | 4.30 | 4.25 | 4.40 | 4.75 | 4.25 | 4.70 | 3.00 |
| 26 | 5.50 | 3.50 | 4.25 | 3.90 | 3.20 | 4.20 | 4.50 | 4.20 | 4.70 | 4.20 | 4.50 | 3.10 |
| 27 | 5.40 | 3.55 | 4.20 | 3.85 | 4.70 | 3.75 | 4.50 | 4.20 | 4.60 | 4.10 | 4.40 | 3.00 |
| 28 | 5.20 | 3.60 | 4.25 | 4.15 | 3.80 | 4.60 | 4.50 | 4.30 | 4.60 | 4.05 | 4.30 | 4.50 |
| 29 | 5.00 | ..... | 4.20 | 4.00 | 3.40 | 3.50 | 4.00 | 4.50 | 7.30 | 4.00 | 4.25 | 4.50 |
| 30 | 4.80 | ..... | 5.10 | 4.00 | 3.40 | 3.50 | 4.50 | 6.20 | 12.00 | 4.00 | 4.20 | 4.50 |
| 31 | 4.65 | ..... | 5.90 | ..... | 3.30 | ..... | 4.50 | 6.20 | ..... | 3.90 | ..... | 6.00 |

NOTE.—Readings July 1 to December 31 taken from vertical gage.

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.30 | 4.20 | 4.50 | 3.55 | 3.80 | 4.90 | 3.40 | 3.00 | 2.50 | 3.30 | 3.00 | 3.40 |
| 2 | 4.90 | 4.90 | 6.00 | 3.50 | 3.75 | 4.70 | 3.30 | 2.90 | 2.50 | 3.20 | 3.00 | 3.30 |
| 3 | 4.70 | 4.30 | 5.00 | 3.40 | 3.70 | 4.20 | 3.30 | 2.80 | 2.70 | 3.10 | 3.00 | 3.20 |
| 4 | 4.50 | 4.20 | 4.50 | 3.30 | 4.20 | 3.90 | 3.40 | 2.80 | 2.80 | 3.00 | 3.00 | 3.10 |
| 5 | 4.40 | 5.00 | 4.30 | 3.20 | 3.70 | 3.70 | 3.45 | 2.90 | 2.00 | 3.30 | 2.90 | 3.10 |
| 6 | 4.40 | 4.90 | 4.20 | 4.00 | 4.40 | 3.60 | 3.30 | 2.80 | 2.70 | 3.00 | 2.85 | 3.10 |
| 7 | 4.40 | 4.60 | 4.10 | 3.70 | 3.20 | 3.50 | 3.30 | 2.80 | 2.60 | 2.90 | 2.80 | 3.05 |
| 8 | 4.40 | 4.30 | 4.40 | 3.80 | 4.00 | 3.90 | 3.20 | 2.70 | 2.80 | 3.00 | 2.80 | 3.05 |
| 9 | 4.40 | 4.20 | 4.10 | 3.80 | 3.90 | 4.85 | 3.20 | 2.80 | 2.70 | 3.00 | 2.80 | 4.80 |
| 10 | 4.40 | 4.10 | 4.70 | 3.70 | 5.00 | 3.90 | 3.25 | 2.80 | 2.60 | 2.90 | 3.40 | 4.30 |
| 11 | 4.40 | 3.95 | 4.70 | 3.50 | 4.40 | 3.85 | 3.30 | 2.80 | 2.50 | 2.80 | 3.30 | 4.00 |
| 12 | 4.00 | 3.90 | 4.50 | 3.50 | 4.10 | 3.60 | 3.30 | 2.80 | 2.80 | 2.80 | 3.25 | 3.80 |
| 13 | 4.00 | 3.80 | 4.40 | 3.40 | 4.10 | 3.60 | 3.90 | 3.00 | 2.70 | 2.75 | 3.20 | 3.60 |
| 14 | 3.90 | 3.70 | 4.00 | 3.40 | 3.90 | 3.70 | 3.40 | 3.10 | 2.60 | 2.70 | 3.10 | 5.50 |
| 15 | 3.90 | 3.70 | 3.95 | 3.50 | 4.10 | 3.60 | 3.30 | 3.50 | 2.50 | 2.70 | 3.00 | 4.50 |
| 16 | 3.80 | 3.60 | 3.90 | 3.60 | 4.00 | 3.60 | 3.30 | 3.40 | 2.50 | 2.70 | 3.00 | 4.30 |
| 17 | 3.80 | 3.55 | 3.85 | 3.60 | 3.90 | 3.60 | 3.30 | 3.00 | 2.50 | 2.65 | 2.90 | 4.00 |
| 18 | 3.80 | 3.50 | 3.80 | 3.90 | 3.80 | 3.60 | 3.30 | 3.00 | 2.50 | 2.65 | 3.25 | 3.60 |
| 19 | 3.70 | 3.50 | 3.70 | 3.80 | 3.70 | 3.50 | 3.20 | 3.00 | 2.45 | 2.65 | 3.50 | 3.60 |
| 20 | 4.00 | 3.50 | 3.75 | 3.60 | 3.70 | 3.50 | 3.20 | 3.00 | 2.45 | 2.60 | 3.20 | 3.60 |
| 21 | 4.00 | 3.50 | 3.70 | 3.50 | 3.60 | 3.65 | 3.20 | 3.00 | 2.40 | 2.60 | 3.80 | 3.55 |
| 22 | 3.90 | 3.50 | 3.60 | 3.50 | 3.50 | 3.65 | 3.10 | 2.90 | 2.70 | 2.60 | 4.00 | 3.50 |
| 23 | 3.70 | 3.50 | 3.50 | 5.00 | 3.45 | 3.60 | 2.90 | 3.05 | 7.00 | 2.60 | 4.40 | 6.30 |
| 24 | 3.70 | 3.50 | 3.50 | 5.50 | 3.45 | 3.60 | 2.90 | 3.00 | 4.00 | 2.60 | 5.80 | 5.10 |
| 25 | 3.70 | 3.70 | 3.50 | 5.10 | 3.50 | 4.50 | 3.00 | 2.90 | 3.50 | 2.55 | 4.60 | 4.50 |
| 26 | 3.80 | 3.80 | 3.60 | 4.90 | 4.00 | 3.90 | 3.00 | 2.70 | 3.30 | 2.50 | 4.20 | 4.30 |
| 27 | 3.50 | 3.80 | 3.55 | 4.00 | 4.00 | 3.60 | 3.10 | 2.60 | 3.00 | 2.80 | 3.90 | 4.20 |
| 28 | 3.00 | 3.80 | 3.50 | 3.95 | 3.60 | 3.70 | 3.00 | 2.60 | 3.10 | 2.75 | 3.70 | 4.10 |
| 29 | 3.00 | ..... | 3.40 | 3.90 | 3.50 | 3.90 | 2.90 | 2.50 | 4.40 | 2.70 | 3.60 | 3.90 |
| 30 | 3.20 | ..... | 3.40 | 3.90 | 3.45 | 3.50 | 3.10 | 2.50 | 3.70 | 2.65 | 3.50 | 6.50 |
| 31 | 3.50 | ..... | 3.60 | ..... | 3.90 | ..... | 3.10 | 2.50 | ..... | 2.60 | ..... | 5.50 |

Daily Gage Height, in Feet, of Little Tennessee River at Judson, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.80 | 4.10 | 4.50 | 4.30 | 4.80 | 3.50 | 2.90 | 2.90 | 3.05 | 2.60 |
| 2 | 4.50 | 4.40 | 4.40 | 4.20 | 4.70 | 3.50 | 2.90 | 2.90 | 3.00 | 2.50 |
| 3 | 4.30 | 4 30 | 4.50 | 4.10 | 4.50 | 3.50 | 3.00 | 2.90 | 2.95 | 2.50 |
| 4 | 4.20 | 4.25 | 4.40 | 4.00 | 4.10 | 3.40 | 4.00 | 2.90 | 2.90 | 2.50 |
| 5 | 6.00 | 4.20 | 4.40 | 4.10 | 4.10 | 3.45 | 4.00 | 3.00 | 3.00 | 2.50 |
| 6 | 5.00 | 4.50 | 4.30 | 4.20 | 4.00 | 3.40 | 4.10 | 4.00 | 4.00 | 2.45 |
| 7 | 4.70 | 4.20 | 4.20 | 4.10 | 4.10 | 3.45 | 4.10 | 3.50 | 3.30 | 2.45 |
| 8 | 4.40 | 4.10 | 4.10 | 4.00 | 4.20 | 3.40 | 4.70 | 3.40 | 3.10 | 2.40 |
| 9 | 4.30 | 4.00 | 4.00 | 3.95 | 4.20 | 3.30 | 4.00 | 3.40 | 3.00 | 2.40 |
| 10 | 4.20 | 4.20 | 4.00 | 3.90 | 4.20 | 3.30 | 4.20 | 3.30 | 2.95 | 3.20 |
| 11 | 4.10 | 4.50 | 4.00 | 3.80 | 4.10 | 3.60 | 3.60 | 3.00 | 2.90 | 3.00 |
| 12 | 8.50 | 4.90 | 5.00 | 3.70 | 4.00 | 3.40 | 3.50 | 3.00 | 2.85 | 2.80 |
| 13 | 6.50 | 5.20 | 4.50 | 3.60 | 3.90 | 3.40 | 3.50 | 2.90 | 2.80 | 2.70 |
| 14 | 5.10 | 5.30 | 4.45 | 3.55 | 3.90 | 4.00 | 3.50 | 2.85 | 2.80 | 2.60 |
| 15 | 5.00 | 10.90 | 4.40 | 4.70 | 3.90 | 4.70 | 3.40 | 2.80 | 2.80 | 2.55 |
| 16 | 4.70 | 7.90 | 4.40 | 5.00 | 3.90 | 3.60 | 3.40 | 2.85 | 2.70 | 2.50 |
| 17 | 4.80 | 6.50 | 4.30 | 4.50 | 3.90 | 3.40 | 3.30 | 2.80 | 2.70 | 2.50 |
| 18 | 4.55 | 5.50 | 4.00 | 4.20 | 3.90 | 3.35 | 3.20 | 2.80 | 2.70 | 2.50 |
| 19 | 4.40 | 5.30 | 3.90 | 4.30 | 4.40 | 3.30 | 3.50 | 2.85 | 2.70 | 2.50 |
| 20 | 4.30 | 5.10 | 5.10 | 4.20 | 3.10 | 3.30 | 3.10 | 2.80 | 2.70 | 2.50 |
| 21 | 4.20 | 4.90 | 5.10 | 4.00 | 3.20 | 3.40 | 3.00 | 2.95 | 2.70 | 2.50 |
| 22 | 4.15 | 4.70 | 4.60 | 3.90 | 3.20 | 3.30 | 3.00 | 4.00 | 2.65 | 2.45 |
| 23 | 4.10 | 4.40 | 6.00 | 3.90 | 3.10 | 3.10 | 3.00 | 4.00 | 2.65 | 4.00 |
| 24 | 4.00 | 4.40 | 7.50 | 3.70 | 3.60 | 3.10 | 3.00 | 4.05 | 2.60 | 5.00 |
| 25 | 3.90 | 4.50 | 6.20 | 7.00 | 4.00 | 3.10 | 3.00 | 5.40 | 2.60 | 5.20 |
| 26 | 3.90 | 4.40 | 5.50 | 7.00 | 4.10 | 3.00 | 3.00 | 4.45 | 2.50 | 3.00 |
| 27 | 3.90 | 4.40 | 5.20 | 6.50 | 4.00 | 3.00 | 3.50 | 3.80 | 2.50 | 2.90 |
| 28 | 4.00 | 4.20 | 5.00 | 5.00 | 4.20 | 3.00 | 3.40 | 3.50 | 2.50 | 3.00 |
| 29 | 4.00 | 4.20 | 4.70 | 4.70 | 4.00 | 2.90 | 3.00 | 3.30 | 2.70 | 4.00 |
| 30 | 3.95 | ..... | 4.50 | 4.70 | 4.00 | 2.90 | 3.00 | 3.20 | 2.60 | 3.60 |
| 31 | 3.90 | ..... | 4.40 | ..... | 3.60 | ..... | 2.90 | 3.10 | ..... | 3.20 |

Rating Table for Little Tennessee River at Judson, N. C., for 1896–1899.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.0 | 225 | 4.0 | 2,650 | 6.0 | 6,750 | 8.4 | 13,700 |
| 2.1 | 250 | 4.1 | 2,835 | 6.1 | 6,995 | 8.6 | 14,475 |
| 2.2 | 300 | 4.2 | 3,020 | 6.2 | 7,240 | 8.8 | 15,275 |
| 2.3 | 370 | 4.3 | 3,205 | 6.3 | 7,485 | 9.0 | 16,100 |
| 2.4 | 445 | 4.4 | 3,390 | 6.4 | 7,730 | 9.2 | 16,950 |
| 2.5 | 525 | 4.5 | 3,575 | 6.5 | 7,975 | 9.4 | 17,825 |
| 2.6 | 610 | 4.6 | 3,770 | 6.6 | 8,240 | 9.6 | 18,725 |
| 2.7 | 705 | 4.7 | 3,965 | 6.7 | 8,505 | 9.8 | 19,500 |
| 2.8 | 805 | 4.8 | 4,160 | 6.8 | 8,770 | 10.0 | 20,600 |
| 2.9 | 925 | 4.9 | 4,355 | 6.9 | 9,035 | 10.2 | 21,600 |
| 3.0 | 1,060 | 5.0 | 4,550 | 7.0 | 9,300 | 10.4 | 22,600 |
| 3.1 | 1,205 | 5.1 | 4,760 | 7.1 | 9,580 | 10.6 | 23,600 |
| 3.2 | 1,360 | 5.2 | 4,970 | 7.2 | 9,860 | 10.8 | 24,600 |
| 3.3 | 1,515 | 5.3 | 5,180 | 7.3 | 10,140 | 11.0 | 25,600 |
| 3.4 | 1,670 | 5.4 | 5,390 | 7.4 | 10,430 | 11.2 | 26,600 |
| 3.5 | 1,825 | 5.5 | 5,600 | 7.5 | 10,700 | 11.4 | 27,600 |
| 3.6 | 1,990 | 5.6 | 5,830 | 7.6 | 11,010 | 11.6 | 28,600 |
| 3.7 | 2,155 | 5.7 | 6,060 | 7.8 | 11,600 | 11.8 | 29,600 |
| 3.8 | 2,320 | 5.8 | 6,290 | 8.0 | 12,275 | 12.0 | 30,600 |
| 3.9 | 2,485 | 5.9 | 6,520 | 8.2 | 12,975 | | |

RATING TABLE FOR LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1900.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.2 | 325 | 3.6 | 1,935 | 5.0 | 4,650 | 8.5 | 14,200 |
| 2.4 | 427 | 3.8 | 2,315 | 5.5 | 5,650 | 9.0 | 16,200 |
| 2.6 | 596 | 4.0 | 2,695 | 6.0 | 6,720 | 9.5 | 18,450 |
| 2.8 | 828 | 4.2 | 3,075 | 6.5 | 7,845 | 10.0 | 20,700 |
| 3.0 | 1,060 | 4.4 | 3,455 | 7.0 | 9,030 | 11.0 | 27,400 |
| 3.2 | 1,310 | 4.6 | 3,850 | 7.5 | 10,420 | 12.0 | 37,400 |
| 3.4 | 1,595 | 4.8 | 4,250 | 8.0 | 12,200 | 13.0 | 48,000 |

RATING TABLE FOR LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.2 | 325 | 3.6 | 1,800 | 5.0 | 4,250 | 6.4 | 7,560 |
| 2.4 | 425 | 3.8 | 2,100 | 5.2 | 4,685 | 6.6 | 8,050 |
| 2.6 | 585 | 4.0 | 2,400 | 5.4 | 5,155 | 6.8 | 8,540 |
| 2.8 | 785 | 4.2 | 2,770 | 5.6 | 5,625 | 7.0 | 9,030 |
| 3.0 | 1,000 | 4.4 | 3,140 | 5.8 | 6,100 | | |
| 3.2 | 1,250 | 4.6 | 3,510 | 6.0 | 6,580 | | |
| 3.4 | 1,500 | 4.8 | 3,880 | 6.2 | 7,070 | | |

RATING TABLE FOR LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1902–1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.20 | 335 | 3.40 | 1,580 | 4.60 | 3,580 | 6.60 | 8,050 |
| 2.30 | 405 | 3.50 | 1,720 | 4.70 | 3,780 | 6.80 | 8,540 |
| 2.40 | 485 | 3.60 | 1,860 | 4.80 | 3,980 | 7.00 | 9,050 |
| 2.50 | 575 | 3.70 | 2,000 | 4.90 | 4,180 | 7.20 | 9,590 |
| 2.60 | 675 | 3.80 | 2,140 | 5.00 | 4,380 | 7.40 | 10,160 |
| 2.70 | 775 | 3.90 | 2,300 | 5.20 | 4,820 | 7.60 | 10,780 |
| 2.80 | 875 | 4.00 | 2,460 | 5.40 | 5,260 | 7.80 | 11,470 |
| 2.90 | 985 | 4.10 | 2,620 | 5.60 | 5,700 | 8.00 | 12,200 |
| 3.00 | 1,100 | 4.20 | 2,800 | 5.80 | 6,140 | 8.50 | 14,200 |
| 3.10 | 1,220 | 4.30 | 2,980 | 6.00 | 6,580 | 9.00 | 16,200 |
| 3.20 | 1,340 | 4.40 | 3,180 | 6.20 | 7,070 | 9.50 | 18,450 |
| 3.30 | 1,460 | 4.50 | 3,380 | 6.40 | 7,560 | 10.00 | 20,700 |

NOTE.—The above table is based on forty discharge measurements made during 1896–1905. It is well defined between gage heights 2.2 feet and 5 feet. The table has been extended beyond these limits. Above gage height 10 feet the rating curve is a tangent, the difference being 480 per tenth.

RATING TABLE FOR LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1906.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.00 | 1,000 | 4.20 | 2,580 | 5.40 | 4,920 | 7.20 | 9,670 |
| 3.10 | 1,100 | 4.30 | 2,750 | 5.50 | 5,150 | 7.40 | 10,290 |
| 3.20 | 1,200 | 4.40 | 2,920 | 5.60 | 5,380 | 7.60 | 10,930 |
| 3.30 | 1,310 | 4.50 | 3,100 | 5.70 | 5,620 | 7.80 | 11,600 |
| 3.40 | 1,430 | 4.60 | 3,280 | 5.80 | 5,860 | 8.00 | 12,300 |
| 3.50 | 1,550 | 4.70 | 3,470 | 5.90 | 6,110 | 8.20 | 13,030 |
| 3.60 | 1,680 | 4.80 | 3,660 | 6.00 | 6,360 | 8.40 | 13,800 |
| 3.70 | 1,820 | 4.90 | 3,860 | 6.20 | 6,870 | 8.60 | 14,600 |
| 3.80 | 1,960 | 5.00 | 4,060 | 6.40 | 7,390 | 8.80 | 15,400 |
| 3.90 | 2,110 | 5.10 | 4,270 | 6.60 | 7,930 | 9.00 | 16,200 |
| 4.00 | 2,260 | 5.20 | 4,480 | 6.80 | 8,490 | 10.00 | 20,700 |
| 4.10 | 2,420 | 5.30 | 4,700 | 7.00 | 9,070 | 11.00 | 25,500 |

NOTE.—The above table is applicable only for open-channel conditions. It is based on five discharge measurements made during 1906 and on the general form of the 1905 curve. It is well defined between gage heights 3.0 feet and 11.0 feet. Above gage height 10.0 feet the rating curve is a tangent, the difference being 480 per tenth.

RATING TABLE FOR LITTLE TENNESSEE RIVER AT JUDSON, N. C., FOR 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.40 | 600 | 3.50 | 1,580 | 4.60 | 3,280 | 5.70 | 5,620 |
| 2.50 | 670 | 3.60 | 1,700 | 4.70 | 3,470 | 5.80 | 5,860 |
| 2.60 | 740 | 3.70 | 1,830 | 4.80 | 3,660 | 5.90 | 6,110 |
| 2.70 | 810 | 3.80 | 1,970 | 4.90 | 3,860 | 6.00 | 6,360 |
| 2.80 | 890 | 3.90 | 2,110 | 5.00 | 4,060 | 6.20 | 6,870 |
| 2.90 | 970 | 4.00 | 2,260 | 5.10 | 4,270 | 6.40 | 7,390 |
| 3.00 | 1,060 | 4.10 | 2,420 | 5.20 | 4,480 | 6.60 | 7,930 |
| 3.10 | 1,150 | 4.20 | 2,580 | 5.30 | 4,700 | 6.80 | 8,490 |
| 3.20 | 1,250 | 4.30 | 2,750 | 5.40 | 4,920 | 7.00 | 9,070 |
| 3.30 | 1,350 | 4.40 | 2,920 | 5.50 | 5,150 | | |
| 3.40 | 1,460 | 4.50 | 3,100 | 5.60 | 5,380 | | |

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.

[Drainage area, 675 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1897. | | | | | | |
| January | 4,160 | 1,670 | 2,393 | 147,141 | 3.55 | 4.09 |
| February | 14,475 | 1,825 | 4,631 | 257,193 | 6.86 | 7.14 |
| March | 16,950 | 1,907 | 7,689 | 472,781 | 11.39 | 13.13 |
| April | 11,938 | 1,282 | 4,403 | 261,997 | 6.52 | 7.27 |
| May | 4,970 | 1,360 | 2,444 | 150,277 | 3.62 | 4.17 |
| June | 4,160 | 925 | 2,000 | 119,008 | 2.96 | 3.30 |
| July | 4,970 | 1,515 | 2,379 | 146,280 | 3.52 | 4.06 |
| August | 2,650 | 755 | 1,676 | 103,054 | 2.48 | 2.86 |
| September | 925 | 407 | 724 | 43,081 | 1.07 | 1.19 |
| October | 3,770 | 407 | 832 | 51,158 | 1.23 | 1.42 |
| November | 1,515 | 610 | 767 | 45,640 | 1.14 | 1.27 |
| December | 3,770 | 567 | 1,542 | 94,814 | 2.28 | 2.63 |
| The year | 16,950 | 407 | 2,623 | 1,892,424 | 3.89 | 52.53 |
| 1898. | | | | | | |
| January | 5,830 | 705 | 1,570 | 96,536 | 2.33 | 2.69 |
| February | 1,515 | 370 | 799 | 44,374 | 1.18 | 1.53 |
| March | 12,338 | 370 | 1,796 | 110,432 | 2.66 | 2.97 |
| April | 6,290 | 1,060 | 2,416 | 143,762 | 3.58 | 3.99 |
| May | 3,113 | 335 | 1,885 | 115,905 | 2.79 | 3.22 |
| June | 805 | 300 | 564 | 33,560 | 0.84 | 0.93 |
| July | 8,770 | 275 | 1,246 | 76,614 | 1.85 | 2.13 |
| August | 22,600 | 1,592 | 5,836 | 358,844 | 8.65 | 9.97 |
| September | 30,350 | 1,670 | 4,518 | 268,839 | 6.69 | 7.46 |
| October | 38,100 | 1,747 | 5,812 | 357,368 | 8.61 | 9.93 |
| November | 3,770 | 2,405 | 2,847 | 169,408 | 4.21 | 4.70 |
| December | 4,550 | 1,825 | 2,190 | 134,659 | 3.24 | 3.74 |
| The year | 38,100 | 275 | 2,623 | 1,910,301 | 3.89 | 53.26 |

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.—*Continued.*

[Drainage area, 675 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1899. | | | | | | |
| January | 3,112 | 1,825 | 2,171 | 133,490 | 3.22 | 3.71 |
| February | 27,600 | 1,907 | 7,949 | 441,465 | 11.77 | 12.26 |
| March | 35,600 | 1,990 | 6,995 | 430,106 | 10.36 | 11.94 |
| April | 4,160 | 1,747 | 2,209 | 131,445 | 3.27 | 3.65 |
| May | 6,060 | 370 | 1,978 | 121,622 | 2.93 | 3.38 |
| June | 8,505 | 335 | 1,672 | 99,491 | 2.48 | 2.77 |
| July | 3,390 | 705 | 1,739 | 106,927 | 2.58 | 2.97 |
| August | 4,550 | 335 | 1,196 | 73,539 | 1.77 | 2.04 |
| September | 3,205 | 300 | 801 | 47,663 | 1.19 | 1.33 |
| October | 5,830 | 445 | 921 | 56,630 | 1.36 | 1.57 |
| November | 1,825 | 445 | 729 | 43,379 | 1.08 | 1.20 |
| December | 13,700 | 445 | 1,423 | 87,497 | 2.11 | 2.43 |
| The year | 35,600 | 300 | 2,482 | 1,773,254 | 3.68 | 49.25 |
| 1900. | | | | | | |
| January | 3,455 | 375 | 785 | 48,268 | 1.16 | 1.34 |
| February | 31,900 | 654 | 2,982 | 165,612 | 4.42 | 4.60 |
| March | 7,615 | 2,125 | 3,034 | 186,553 | 4.49 | 5.17 |
| April | 6,500 | 770 | 1,962 | 116,747 | 2.91 | 3.25 |
| May | 3,650 | 538 | 1,245 | 76,552 | 1.84 | 2.12 |
| June | 6,500 | 1,595 | 3,464 | 206,122 | 5.13 | 5.73 |
| July | 6,060 | 1,595 | 3,005 | 184,770 | 4.45 | 5.13 |
| August | 2,125 | 1,180 | 1,422 | 87,435 | 2.11 | 2.44 |
| September | 1,380 | 1,180 | 1,270 | 75,570 | 1.88 | 2.10 |
| October | 8,305 | 480 | 1,429 | 87,866 | 2.12 | 2.45 |
| November | 4,250 | 828 | 1,244 | 74,023 | 1.84 | 2.05 |
| December | 6,830 | 1,180 | 2,274 | 139,823 | 3.37 | 3.89 |
| The year | 31,900 | 375 | 2,010 | 1,449,341 | 2.98 | 40.27 |
| 1901. | | | | | | |
| January | 13,800 | 1,250 | 2,349 | ---------- | 3.48 | 4.01 |
| February | 2,955 | 1,250 | 1,642 | ---------- | 2.43 | 2.53 |
| March | 23,650 | 1,185 | 2,277 | ---------- | 4.86 | 5.60 |
| April | 14,000 | 1,725 | 3,987 | ---------- | 5.91 | 6.59 |
| May | 40,580 | 1,250 | 3,762 | ---------- | 5.57 | 6.43 |
| June | 7,560 | 1,435 | 2,740 | ---------- | 4.06 | 4.53 |
| July | 3,510 | 1,125 | 1,745 | ---------- | 2.59 | 2.99 |
| August | 22,125 | 1,125 | 6,183 | ---------- | 9.16 | 10.56 |
| September | 3,140 | 1,250 | 1,550 | ---------- | 2.30 | 2.57 |
| October | 3,325 | 1,125 | 1,374 | ---------- | 2.04 | 2.36 |
| November | 1,125 | 785 | 909 | ---------- | 1.35 | 1.51 |
| December | 57,540 | 735 | 8,120 | ---------- | 12.00 | 13.83 |
| The year | 57,540 | 735 | 3,136 | ---------- | 4.65 | 63.51 |

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.—*Continued.*

[Drainage area, 675 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1902. | | | | | |
| January | 13,800 | 1,790 | 3,827 | 5.67 | 6.54 |
| February | 50,460 | 2,220 | 5,036 | 7.46 | 7.77 |
| March | 17,550 | 1,790 | 4,079 | 6.04 | 6.96 |
| April | 4,820 | 1,100 | 3,032 | 4.49 | 5.01 |
| May | 3,580 | 975 | 1,592 | 2.36 | 2.72 |
| June | 2,140 | 975 | 1,319 | 1.95 | 2.18 |
| July | 2,300 | 675 | 1,010 | 1.50 | 1.73 |
| August | 775 | 475 | 627 | .93 | 1.07 |
| September | 2,620 | 475 | 964 | 1.43 | 1.60 |
| October | 1,580 | 675 | 846 | 1.25 | 1.44 |
| November | 3,780 | 575 | 1,128 | 1.67 | 1.86 |
| December | 4,180 | 1,220 | 1,939 | 2.87 | 3.31 |
| The year | 50,460 | 475 | 2,117 | 3.14 | 42.19 |
| 1903. | | | | | |
| January | 3,080 | 1,100 | 1,830 | 2.71 | 3.12 |
| February | 23,820 | 1,790 | 4,908 | 7.27 | 7.57 |
| March | 22,140 | 3,680 | 7,521 | 11.14 | 12.84 |
| April | 15,000 | 2,460 | 5,782 | 8.57 | 9.56 |
| May | 2,710 | 1,340 | 1,991 | 2.95 | 3.40 |
| June | 5,920 | 1,340 | 2,631 | 3.90 | 4.35 |
| July | 2,140 | 875 | 1,389 | 2.06 | 2.37 |
| August | 3,080 | 575 | 1,023 | 1.52 | 1.75 |
| September | 1,860 | 445 | 605 | .90 | 1.00 |
| October | 775 | 405 | 459 | .68 | .78 |
| November | 1,520 | 370 | 669 | .99 | 1.10 |
| December | 1,160 | 335 | 575 | .85 | .98 |
| The year | 23,820 | 335 | 2,449 | 3.63 | 48.82 |
| 1904. | | | | | |
| January | 5,040 | 477 | 984 | 1.46 | 1.68 |
| February | 5,216 | 437 | 1,620 | 2.40 | 2.59 |
| March | 7,192 | 1,077 | 2,617 | 3.88 | 4.47 |
| April | 2,460 | 1,280 | 1,655 | 2.45 | 2.73 |
| May | 1,720 | 930 | 1,268 | 1.88 | 2.17 |
| June | 1,460 | 725 | 992 | 1.47 | 1.64 |
| July | 1,400 | 530 | 724 | 1.07 | 1.23 |
| August | 3,280 | 625 | 1,112 | 1.65 | 1.90 |
| September | 1,340 | 405 | 642 | .951 | 1.06 |
| October | 405 | 275 | 300 | .444 | .512 |
| November | 875 | 275 | 472 | .699 | .780 |
| December | 3,780 | 275 | 964 | 1.43 | 1.65 |
| The year | 7,192 | 275 | 1,112 | 1.65 | 22.41 |

ESTIMATED MONTHLY DISCHARGE OF LITTLE TENNESSEE RIVER AT JUDSON, N. C.—*Continued.*

[Drainage area, 675 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 13,000 | 275 | 1,909 | 2.83 | 3.26 |
| February | 12,200 | 825 | 3,196 | 4.74 | 4.94 |
| March | 3,180 | 1,460 | 2,013 | 2.98 | 3.44 |
| April | 3,580 | 1,220 | 1,681 | 2.49 | 2.78 |
| May* | 3,980 | 1,520 | 2,150 | 3.19 | 3.68 |
| June | 2,220 | 825 | 1,326 | 1.96 | 2.19 |
| July | 10,780 | 825 | 2,177 | 3.23 | 3.72 |
| August | 6,825 | 370 | 1,694 | 2.51 | 2.89 |
| September | 1,340 | 370 | 734 | 1.09 | 1.22 |
| October | 2,220 | 575 | 905 | 1.34 | 1.54 |
| November | 1,100 | 485 | 602 | .892 | .995 |
| December | 12,200 | 625 | 2,997 | 4.44 | 5.12 |
| The year | 13,000 | 275 | 1,782 | 2.64 | 35.78 |
| 1906. | | | | | |
| January | 16,200 | 1,310 | 4,080 | 6.04 | 6.96 |
| February | 3,100 | 1,550 | 2,010 | 2.98 | 3.10 |
| March | 6,360 | 1,680 | 2,940 | 4.36 | 5.03 |
| April | 4,270 | 2,030 | 2,900 | 4.30 | 4.80 |
| May | 3,470 | 1,100 | 1,650 | 2.44 | 2.81 |
| June | 5,150 | 1,200 | 2,420 | 3.59 | 4.00 |
| July | 8,490 | 1,150 | 3,450 | 5.11 | 5.89 |
| August | 6,870 | 2,260 | 3,380 | 5.01 | 5.78 |
| September | 30,300 | 1,200 | 4,490 | 6.65 | 7.42 |
| October | 18,000 | 2,110 | 5,380 | 7.97 | 9.19 |
| November | 37,500 | 1,550 | 4,050 | 6.00 | 6.69 |
| December | 6,360 | 1,000 | 2,650 | 3.93 | 4.53 |
| The year | 37,500 | 1,000 | 3,280 | 4.86 | 66.20 |
| 1907. | | | | | |
| January | 4,700 | 1,060 | 2,340 | 3.47 | 4.00 |
| February | 4,060 | 1,580 | 2,240 | 3.32 | 3.46 |
| March | 6,360 | 1,460 | 2,410 | 3.57 | 4.12 |
| April | 5,150 | 1,250 | 2,100 | 3.11 | 3.47 |
| May | 4,060 | 1,250 | 2,080 | 3.08 | 3.55 |
| June | 3,860 | 1,580 | 2,060 | 3.05 | 3.40 |
| July | 2,110 | 970 | 1,280 | 1.90 | 2.19 |
| August | 1,580 | 670 | 964 | 1.43 | 1.65 |
| September | 9,070 | 600 | 1,260 | 1.87 | 2.09 |
| October | 1,350 | 670 | 897 | 1.33 | 1.53 |
| November | 5,860 | 890 | 1,620 | 2.40 | 2.68 |
| December | 7,660 | 1,100 | 2,610 | 3.87 | 4.46 |
| The year | 9,070 | 600 | 1,820 | 2.70 | 36.60 |

*Mean for 27 days taken as mean for month.

NOTE.—Values for 1906 are good.

### LITTLE TENNESSEE RIVER AT FRANKLIN, N. C.

This station was established June 12, 1907. It is located at the iron wagon bridge about ½ mile northeast of Franklin.

The gage is a vertical rod spiked to a tree on the left bank, about 200 feet above the bridge. Discharge measurements are made from the Franklin single-span iron wagon bridge.

The river is about 126 feet wide. The channel is slightly curved for about 300 feet above and below the bridge. The current is swift, and the bottom rocky and probably permanent. Both banks are about 15 feet high and probably do not overflow.

The bench mark is the top of the upstream end of the second iron floor beam from the right end of the iron span; elevation, 18.54 feet.

DISCHARGE MEASUREMENTS OF LITTLE TENNESSEE RIVER AT FRANKLIN, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| June 12 | F. A. Murray | 126 | 267 | 2.57 | 1.84 | 687 |
| July 17 | do | 125 | 245 | 2.24 | 1.56 | 550 |
| July 17 | B. M. Hall, Jr. | 125 | 245 | 2.23 | 1.56 | 547 |
| Aug. 28 | Frank P. Thomas | 123 | 215 | 1.92 | 1.21 | 414 |
| Aug. 28 | do | 123 | 217 | 1.97 | 1.20 | 428 |
| Aug. 28 | F. A. Murray | 112 | 185 | 1.90 | 1.13 | 351 |
| Nov. 8 | do | 112 | 182 | 1.91 | 1.19 | 348 |
| Nov. 9 | do | 112 | 182 | 1.88 | 1.17 | 342 |

DAILY GAGE HEIGHT, IN FEET, OF LITTLE TENNESSEE RIVER AT FRANKLIN, N. C., FOR 1907.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | | 1.80 | 1.25 | 1.05 | 1.70 | 1.10 | 2.00 |
| 2 | | 1.80 | 1.25 | 1.00 | 1.50 | 1.10 | 2.10 |
| 3 | | 1.75 | 1.25 | 1.00 | 1.45 | 1.10 | 2.30 |
| 4 | | 2.00 | 1.25 | 1.05 | 1.40 | 1.10 | 2.30 |
| 5 | | 1.90 | 1.20 | 1.10 | 1.35 | 1.10 | 2.40 |
| 6 | | 1.70 | 1.20 | 1.10 | 1.30 | 1.10 | 2.45 |
| 7 | | 1.70 | 1.15 | 1.10 | 1.30 | 1.60 | 2.40 |
| 8 | | 1.65 | 1.15 | 1.10 | 1.25 | 2.00 | 2.60 |
| 9 | | 1.60 | 1.10 | 1.10 | 1.20 | 1.80 | 2.65 |
| 10 | | 1.60 | 1.10 | 1.05 | 1.15 | 1.80 | 2.65 |
| 11 | | 1.60 | 1.10 | 1.10 | 1.10 | 1.80 | 2.60 |
| 12 | 1.85 | 1.80 | 1.40 | 1.05 | 1.10 | 1.70 | 2.60 |
| 13 | 1.80 | 1.85 | 1.40 | 1.00 | 1.05 | 1.65 | 2.60 |
| 14 | 2.00 | 1.75 | 1.35 | 1.00 | 1.00 | 1.65 | 2.50 |
| 15 | 1.85 | 1.70 | 1.60 | 1.00 | 1.00 | 1.65 | 2.85 |
| 16 | 1.80 | 1.70 | 1.55 | 1.00 | 1.00 | 1.70 | 3.00 |
| 17 | 1.70 | 1.65 | 1.70 | 1.00 | 1.05 | 2.00 | 3.00 |
| 18 | 1.65 | 1.60 | 2.00 | 1.00 | 1.00 | 1.90 | 3.20 |
| 19 | 1.80 | 1.55 | 1.80 | .95 | 1.00 | 1.90 | 3.30 |
| 20 | 1.80 | 1.50 | 1.70 | .90 | 1.00 | 1.90 | 3.40 |
| 21 | 1.70 | 1.50 | 1.60 | .90 | 1.00 | 1.85 | 3.40 |
| 22 | 1.65 | 1.45 | 1.55 | .90 | 1.00 | 1.80 | 3.30 |
| 23 | 1.80 | 1.40 | 1.50 | 6.70 | 1.00 | 1.80 | 3.20 |
| 24 | 2.30 | 1.40 | 1.40 | 2.60 | 1.00 | 1.80 | 3.00 |
| 25 | 1.90 | 1.40 | 1.35 | 2.00 | 1.00 | 1.80 | 3.00 |
| 26 | 1.80 | 1.35 | 1.25 | 1.60 | 1.00 | 2.00 | 2.95 |
| 27 | 1.75 | 1.40 | 1.20 | 1.50 | 1.10 | 2.00 | 2.90 |
| 28 | 1.80 | 1.35 | 1.15 | 2.70 | 1.10 | 2.00 | 2.85 |
| 29 | 2.10 | 1.35 | 1.10 | 2.50 | 1.10 | 2.00 | 2.80 |
| 30 | 2.00 | 1.30 | 1.05 | 2.00 | 1.10 | 2.00 | 2.75 |
| 31 | | 1.30 | 1.05 | | 1.10 | | 2.70 |

Daily Gage Height, in Feet, of Little Tennessee River at Franklin, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.70 | 2.70 | 2.70 | 2.50 | 3.00 | 2.30 | 1.80 | 1.70 | 2.05 | 1.20 |
| 2 | 2.70 | 2.60 | 2.70 | 2.45 | 2.90 | 2.20 | 1.80 | 1.60 | 2.00 | 1.15 |
| 3 | 2.70 | 2.55 | 2.65 | 2.45 | 2.80 | 2.50 | 1.85 | 1.55 | 1.95 | 1.20 |
| 4 | 2.70 | 2.50 | 2.60 | 2.40 | 2.70 | 2.30 | 2.90 | 1.55 | 1.95 | 1.20 |
| 5 | 4.00 | 3.00 | 2.55 | 2.50 | 2.65 | 2.25 | 2.40 | 1.50 | 2.30 | 1.20 |
| 6 | 3.60 | 2.50 | 2.50 | 2.40 | 2.60 | 2.20 | 2.10 | 1.90 | 2.10 | 1.20 |
| 7 | 3.50 | 2.45 | 2.45 | 2.35 | 3.90 | 2.20 | 2.00 | 1.85 | 2.00 | 1.15 |
| 8 | 3.35 | 2.40 | 2.45 | 2.30 | 3.00 | 2.20 | 2.20 | 1.85 | 1.90 | 1.15 |
| 9 | 3.20 | 2.40 | 2.40 | 2.25 | 2.70 | 2.20 | 2.80 | 1.80 | 1.80 | 1.50 |
| 10 | 2.70 | 2.35 | 2.40 | 2.20 | 2.65 | 2.15 | 3.00 | 1.70 | 1.80 | 2.40 |
| 11 | 3.00 | 3.20 | 3.00 | 2.15 | 2.60 | 2.10 | 2.90 | 1.65 | 1.75 | 1.50 |
| 12 | 7.10 | 2.70 | 2.70 | 2.10 | 2.55 | 2.10 | 2.10 | 1.55 | 1.70 | 1.30 |
| 13 | 5.20 | 2.85 | 2.60 | 2.05 | 2.45 | 2.00 | 2.00 | 1.50 | 1.60 | 1.20 |
| 14 | 4.60 | 2.75 | 2.55 | 2.00 | 2.35 | 2.00 | 2.00 | 1.50 | 1.55 | 1.20 |
| 15 | 3.30 | 9.70 | 2.50 | 4.10 | 2.30 | 1.95 | 1.95 | 1.45 | 1.50 | 1.15 |
| 16 | 3.20 | 6.10 | 2.45 | 3.50 | 2.30 | 2.80 | 2.10 | 1.45 | 1.45 | 1.20 |
| 17 | 2.70 | 5.20 | 2.40 | 2.95 | 2.30 | 2.40 | 2.00 | 1.45 | 1.45 | 1.20 |
| 18 | 2.50 | 4.00 | 2.35 | 2.60 | 2.25 | 2.25 | 1.90 | 1.55 | 1.35 | 1.20 |
| 19 | 2.50 | 4.10 | 2.30 | 2.55 | 2.20 | 2.10 | 1.85 | 1.50 | 1.30 | 1.20 |
| 20 | 2.50 | 3.70 | 2.50 | 2.50 | 2.90 | 2.00 | 1.80 | 1.50 | 1.30 | 1.20 |
| 21 | 2.45 | 3.20 | 2.30 | 2.45 | 2.40 | 1.85 | 1.85 | 1.45 | 1.30 | 1.20 |
| 22 | 2.40 | 2.90 | 2.90 | 2.40 | 2.25 | 2.00 | 1.85 | 2.70 | 1.25 | 1.20 |
| 23 | 2.35 | 2.85 | 3.40 | 2.35 | 2.20 | 2.00 | 1.75 | 2.50 | 1.25 | 2.70 |
| 24 | 2.30 | 2.80 | 6.00 | 2.20 | 2.30 | 2.00 | 1.70 | 2.80 | 1.20 | 1.70 |
| 25 | 2.30 | 3.00 | 4.90 | 7.00 | 2.50 | 1.95 | 1.65 | 2.60 | 1.20 | 1.70 |
| 26 | 2.30 | 3.10 | 3.00 | 4.70 | 2.20 | 1.90 | 1.55 | 2.50 | 1.20 | 1.30 |
| 27 | 2.30 | 3.00 | 2.70 | 4.20 | 2.55 | 1.90 | 1.55 | 2.45 | 1.15 | 1.20 |
| 28 | 2.30 | 3.00 | 2.60 | 3.70 | 2.30 | 1.85 | 2.00 | 2.30 | 1.30 | 1.50 |
| 29 | 2.25 | 2.70 | 2.60 | 3.35 | 2.30 | 1.85 | 1.90 | 2.20 | 1.25 | 2.70 |
| 30 | 2.20 | ..... | 2.55 | 3.10 | 2.20 | 1.85 | 1.85 | 2.10 | 1.25 | 2.20 |
| 31 | 3.00 | ..... | 2.50 | ..... | ..... | ..... | 1.75 | 2.10 | ..... | 1.70 |

Rating Table for Little Tennessee River at Franklin, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.90 | 255 | 1.20 | 380 | 1.50 | 520 | 1.80 | 670 |
| 0.95 | 275 | 1.25 | 402 | 1.55 | 545 | 1.85 | 695 |
| 1.00 | 295 | 1.30 | 425 | 1.60 | 570 | 1.90 | 720 |
| 1.05 | 315 | 1.35 | 447 | 1.65 | 595 | 1.95 | 745 |
| 1.10 | 335 | 1.40 | 470 | 1.70 | 620 | 2.00 | 790 |
| 1.15 | 357 | 1.45 | 495 | 1.75 | 645 | | |

### CHEOAH RIVER NEAR MILLSAPS, N. C.

This station was established on August 24, 1907. It is located about 500 feet above the mouth of Snowbird Creek, which is a large tributary.

The gage is a vertical rod attached to a maple tree on the right bank of the river, at the boat landing.

Discharge measurements are made from a boat or by wading.

Measurements are also made of Snowbird Creek, which, together with those at the gage, give the flow of the river below the junction. The records published for the station are for the Cheoah River above Snowbird Creek.

This station is about 12 miles north of Andrews, N. C., from which point it is generally reached by special conveyance.

DISCHARGE MEASUREMENTS OF CHEOAH RIVER NEAR MILLSAPS, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| Aug. 24 | F. A. Murray | 64 | 101 | 0.98 | 1.50 | 99 |
| Oct. 16 | Olin P. Hall | 61 | 88 | 0.77 | 1.30 | 68 |

DISCHARGE MEASUREMENTS OF SNOWBIRD CREEK NEAR MILLSAPS, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| Aug. 24 | F. A. Murray | 58 | 94 | 1.16 | *1.50 | 109 |
| Oct. 16 | Olin P. Hall | 60 | 86 | 1.15 | *1.30 | 99 |

*Gage height from gage on Cheoah River.

DAILY GAGE HEIGHT, IN FEET, OF CHEOAH RIVER NEAR MILLSAPS, N. C., FOR 1907.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ---- | 1.40 | 1.35 | 1.30 | 1.50 | 17 | ---- | 1.10 | 1.25 | 1.50 | 2.00 |
| 2 | ---- | 1.35 | 1.50 | 2.00 | 1.75 | 18 | ---- | 1.10 | 1.30 | 1.75 | 1.90 |
| 3 | ---- | 1.30 | 1.40 | 1.50 | 1.80 | 19 | ---- | 1.10 | 1.25 | 1.50 | 1.80 |
| 4 | ---- | 1.25 | 1.35 | 1.25 | 1.60 | 20 | ---- | 1.10 | 1.30 | 1.60 | 1.75 |
| 5 | ---- | 1.20 | 1.40 | 1.30 | 1.75 | 21 | ---- | 1.90 | 1.25 | 1.50 | 1.55 |
| 6 | ---- | 1.20 | 1.45 | 1.30 | 1.50 | 22 | ---- | 1.50 | 1.20 | 1.55 | 1.75 |
| 7 | ---- | 1.40 | 1.40 | 1.35 | 1.75 | 23 | ---- | 1.10 | 1.25 | 3.00 | 1.85 |
| 8 | ---- | 1.25 | 1.50 | 1.30 | 1.60 | 24 | 1.50 | 1.40 | 1.30 | 2.00 | 1.90 |
| 9 | ---- | 1.30 | 1.45 | 1.50 | 2.00 | 25 | 1.50 | 1.30 | 1.25 | 1.50 | 1.80 |
| 10 | ---- | 1.20 | 1.40 | 2.30 | 1.50 | 26 | 1.40 | 1.35 | 1.20 | 2.00 | 2.00 |
| 11 | ---- | 1.60 | 1.40 | 1.75 | 1.75 | 27 | 1.30 | 1.75 | 1.50 | 1.70 | 2.10 |
| 12 | ---- | 1.30 | 1.45 | 1.50 | 1.85 | 28 | 1.30 | 1.25 | 1.40 | 1.80 | 1.90 |
| 13 | ---- | 1.25 | 1.40 | 1.60 | 2.00 | 29 | 1.30 | 1.30 | 1.30 | 1.50 | 1.90 |
| 14 | ---- | 1.15 | 1.45 | 1.50 | 1.75 | 30 | 1.30 | 1.40 | 1.25 | 1.60 | 5.50 |
| 15 | ---- | 1.20 | 1.30 | 1.75 | 1.85 | 31 | 1.20 | ---- | 1.30 | ---- | 3.80 |
| 16 | ---- | 1.15 | 1.30 | 1.50 | 1.70 | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF CHEOAH RIVER NEAR MILLSAPS, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.50 | 2.00 | 2.00 | 2.00 | 2.00 | 1.50 | 17 | 2.75 | 3.00 | 2.00 | 1.50 | 2.00 | 1.40 |
| 2 | 2.25 | 2.00 | 2.00 | 2.00 | 2.00 | 1.50 | 18 | 2.50 | 2.50 | 1.90 | 1.50 | 2.00 | 1.40 |
| 3 | 2.00 | 2.50 | 2.10 | 2.00 | 2.00 | 2.00 | 19 | 2.75 | 2.75 | 2.00 | 1.50 | 3.00 | 1.40 |
| 4 | 2.00 | 2.00 | 2.20 | 1.95 | 2.00 | 1.50 | 20 | 2.60 | 2.60 | 2.00 | 1.50 | 2.50 | 1.40 |
| 5 | 3.50 | 2.00 | 2.10 | 1.90 | 2.50 | 1.50 | 21 | 2.65 | 2.20 | 2.50 | 2.00 | 2.00 | 1.40 |
| 6 | 2.75 | 1.90 | 2.00 | 1.90 | 2.00 | 1.50 | 22 | 2.20 | 2.10 | 2.00 | 2.00 | 2.00 | 1.40 |
| 7 | 2.25 | 2.00 | 1.90 | 1.95 | 2.00 | 1.50 | 23 | 2.15 | 1.90 | 2.00 | 2.00 | 2.00 | 1.40 |
| 8 | 2.50 | 2.10 | 2.00 | 1.95 | 2.00 | 1.50 | 24 | 2.10 | 2.10 | 3.00 | 9.00 | 2.50 | 1.35 |
| 9 | 2.90 | 2.15 | 2.00 | 1.95 | 2.00 | 1.50 | 25 | 2.00 | 2.00 | 2.50 | 3.00 | 2.00 | 1.30 |
| 10 | 2.70 | 2.00 | 2.00 | 1.90 | 2.00 | 2.50 | 26 | 2.00 | 2.00 | 2.30 | 3.50 | 2.00 | 1.30 |
| 11 | 2.90 | 2.00 | 1.90 | 1.90 | 2.00 | 2.00 | 27 | 2.00 | 2.00 | 2.00 | 2.40 | 1.50 | 1.30 |
| 12 | 2.80 | 2.50 | 2.00 | 1.50 | 2.50 | 1.50 | 28 | 2.90 | 2.10 | 2.00 | 2.00 | 1.50 | 1.30 |
| 13 | 2.80 | 2.75 | 2.00 | 1.50 | 2.40 | 1.50 | 29 | 2.80 | 2.20 | 2.10 | 2.00 | 1.50 | 1.30 |
| 14 | 2.70 | 2.90 | 2.00 | 1.40 | 2.45 | 1.50 | 30 | 2.70 | ---- | 2.50 | 2.00 | 1.50 | 1.30 |
| 15 | 2.60 | 6.00 | 1.90 | 1.45 | 2.00 | 1.45 | 31 | 2.50 | ---- | 2.00 | ---- | 1.50 | ---- |
| 16 | 2.25 | 3.00 | 2.00 | 1.45 | 2.00 | 1.45 | | | | | | | |

RATING TABLE FOR CHEOAH RIVER NEAR MILLSAPS, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 40 | 1.30 | 68 | 1.50 | 99 | 1.70 | 132 |
| 1.15 | 47 | 1.35 | 75 | 1.55 | 107 | ---- | --- |
| 1.20 | 54 | 1.40 | 83 | 1.60 | 115 | ---- | --- |
| 1.25 | 61 | 1.45 | 91 | 1.65 | 123 | ---- | --- |

### TUCKASEEGEE RIVER AT BRYSON, N. C.

This station was originally established in June, 1896, at the Southern Railway bridge about 3 miles above Bryson, N. C., just below Governor Island post-office. This station was abandoned March 25, 1897, on account of the poor section. The present station was established November 7, 1897, at the highway bridge in the town of Bryson, N. C.

The channel is straight for about 600 feet above and below the station. The water is moderately swift, but the current is obstructed by the remnants of two old bridge piers. The right bank is low at the bridge and overflows to a slight extent, but all water passes beneath the bridge and its approach. The left bank is high and rocky and does not overflow. The bed is of gravel and sand, and is fairly constant.

Discharge measurements are made from the sidewalk on the downstream side of the single-span steel highway bridge. The initial point for soundings is the end of the handrail at the left bank on the downstream side of the bridge.

The gage is a vertical rod bolted to the north pier on the right bank at the downstream side of the bridge. It is read once each day by J. M. Welch. The gage is referred to bench marks as follows: (1) A copper bolt set in the stone sill beneath the large window in the northwest corner of D. K. Collins' brick store, about 80 feet east of the northeast corner of the county courthouse; elevation, 22.30 feet. (2) A chisel mark on the top of the handrail on the downstream footway, 6 inches to the right of the post connected with the downstream end of the first floor beam from the right-bank end of the main span; elevation, 21.56 feet. Elevations refer to datum of the gage.

DISCHARGE MEASUREMENTS OF TUCKASEEGEE RIVER AT BRYSON, N. C.

| Date. | Hydrographer. | Meter Number. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1897. | | | | | | |
| Oct. 28 | A. P. Davis | 94 | 518 | 0.33 | 1.00 | 168 |
| 1898. | | | | | | |
| Jan. 19 | E. W. Myers | 2154 | 1,217 | 1.78 | 2.20 | 2,175 |
| Jan. 20 | ----do | 2154 | 1,396 | 2.64 | 3.30 | 3,695 |
| Sept. 3 | ----do | 9 | 2,420 | 7.83 | 6.95 | 18,959 |
| Sept. 4 | ----do | 9 | 1,843 | 3.40 | 3.92 | 6,059 |
| Sept. 5 | ----do | 9 | 1,914 | 6.15 | 5.00 | 11,777 |
| Sept. 5 | ----do | 9 | 1,615 | 5.56 | 4.50 | 9,086 |

DISCHARGE MEASUREMENTS OF TUCKASEEGEE RIVER AT BRYSON, N. C.—*Continued.*

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1899. | | | |
| Feb. 26 | | 7.00 | 19,160 |
| June 17 | | 2.00 | 1,216 |
| June 19 | | 1.80 | 712 |
| Sept. 20 | | 1.25 | 376 |
| Sept. 20 | | 1.25 | 369 |
| Oct. 28 | | 1.10 | 404 |
| Oct. 28 | | 1.10 | 460 |
| Dec. 5 | | 1.20 | 479 |
| Dec. 28 | | 1.70 | 1,010 |
| 1900. | | | |
| Feb. 9 | | 2.95 | 3,316 |
| Mar. 29 | | 2.50 | 2,321 |
| Apr. 27 | | 2.65 | 2,829 |
| May 24 | | 1.80 | 1,390 |
| June 27 | | 2.60 | 2,673 |
| July 7 | | 2.00 | 1,472 |
| Aug. 3 | | 1.60 | 920 |
| Sept. 8 | | 1.20 | 598 |
| Oct. 27 | | 1.60 | 942 |
| Nov. 16 | | 1.20 | 593 |
| Dec. 12 | | 1.50 | 998 |
| Dec. 12 | | 1.50 | 903 |
| Dec. 26 | | 1.60 | 960 |

| Date. | Hydrographer. | Area of Section (Square Feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|
| 1901. | | | | |
| Jan. 12 | R. E. Shuford | --- | 5.45 | 10,420 |
| Feb. 22 | ----do | --- | 1.60 | 906 |
| Apr. 17 | E. W. Myers | --- | 2.43 | 2,459 |
| May 27 | R. E. Shuford | --- | 3.00 | 3,926 |
| July 11 | ----do | --- | 1.65 | 1,024 |
| Aug. 17 | ----do | --- | 5.40 | 9,512 |
| Sept. 19 | E. W. Myers | --- | 2.25 | 2,048 |
| Nov. 7 | R. E. Shuford | --- | 1.35 | 853 |
| Dec. 11 | ----do | --- | 1.40 | 910 |

| Date. | Hydrographer. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1902. | | | | | |
| Aug. 11 | B. S. Drane | 784 | .59 | 1.05 | 466 |
| Aug. 22 | ----do | 769 | .61 | 1.00 | 465 |
| Sept. 17 | ----do | 788 | .66 | 1.00 | 520 |
| Oct. 23 | ----do | 806 | .68 | 1.15 | 546 |

DISCHARGE MEASUREMENTS OF TUCKASEEGEE RIVER AT BRYSON, N. C.—*Continued.*

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Mar. 19 | E. W. Myers | --- | 1,149 | ---- | 2.50 | 2,471 |
| Mar. 19 | ----do---------- | --- | 1,151 | ---- | 2.50 | 2,484 |
| Mar. 27 | B. S. Drane | --- | 1,381 | ---- | 4.35 | 4,435 |
| Apr. 23 | ----do---------- | --- | 1,247 | ---- | 2.78 | 2,923 |
| Apr. 24 | ----do---------- | --- | 1,197 | ---- | 2.63 | 2,748 |
| Apr. 25 | E. W. Myers | --- | 1,217 | ---- | 2.70 | 2,928 |
| June 26 | ----do---------- | --- | 930 | ---- | 1.73 | 1,299 |
| June 27 | ----do---------- | --- | 920 | ---- | 1.70 | 1,225 |
| Aug. 17 | B. S. Drane | --- | 806 | ---- | 1.25 | 659 |
| Aug. 18 | ----do---------- | --- | 869 | ---- | 1.49 | 955 |
| Aug. 18 | ----do---------- | --- | 847 | ---- | 1.41 | 794 |
| Oct. 9 | ----do---------- | --- | 797 | ---- | 1.16 | 607 |
| Oct. 12 | ----do---------- | --- | 755 | ---- | .95 | 419 |
| 1904. | | | | | | |
| Feb. 18 | B. S. Drane | 189 | 865 | 0.92 | 1.31 | 759 |
| Feb. 20 | ----do---------- | 189 | 937 | 1.32 | 1.82 | 1,239 |
| Feb. 23 | M. R. Hall | 189 | 988 | 1.82 | 2.04 | 1,800 |
| Mar. 19 | B. S. Drane | 188 | 949 | 1.35 | 1.74 | 1,281 |
| Mar. 22 | ----do---------- | 190 | 1,079 | 1.92 | 2.29 | 2,068 |
| May 26 | ----do---------- | 290 | 882 | 1.07 | 1.41 | 944 |
| Aug. 15 | ----do---------- | 187 | 821 | 1.14 | 1.41 | 940 |
| Aug. 16 | ----do---------- | 188 | 869 | 1.47 | 1.65 | 1,274 |
| Sept. 30 | ----do---------- | 182 | 701 | .65 | 1.00 | 456 |
| Oct. 1 | ----do---------- | 182 | 701 | .60 | .98 | 422 |
| Oct. 12 | ----do---------- | 182 | 730 | .75 | 1.11 | 550 |
| Dec. 14 | ----do---------- | 182 | 721 | .70 | 1.05 | 502 |
| 1905. | | | | | | |
| Apr. 14 | B. S. Drane | 190 | 963 | 1.62 | 1.91 | 1,563 |
| Apr. 15 | ----do---------- | 190 | 955 | 1.54 | 1.85 | 1,469 |
| June 15 | O. P. Hall | 186 | 804 | 1.08 | 1.45 | 868 |
| Oct. 14 | ----do---------- | 182 | 844 | .71 | 1.20 | 602 |
| 1906. | | | | | | |
| Feb. 10 | O. P. Hall | 190 | 951 | ---- | 1.78 | 1,370 |
| Apr. 17 | ----do---------- | 190 | 1,130 | ---- | 2.67 | 2,830 |
| June 9 | ----do---------- | 190 | 888 | ---- | 1.63 | 1,180 |
| Nov. 6 | ----do---------- | 190 | 866 | ---- | 1.68 | 1,230 |
| 1907. | | | | | | |
| May. 24 | F. A. Murray | 190 | 950 | 1.52 | 1.80 | 1,442 |
| Aug. 23 | F. P. Thomas | 190 | 827 | 1.22 | 1.37 | 1,008 |
| Oct. 19 | Olin P. Hall | 190 | 834 | 0.82 | 1.22 | 686 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1897.

| Day. | Jan. | Feb. | Mar. | Nov. | Dec. | Day. | Jan. | Feb. | Mar. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.25 | 3.10 | 3.75 | ..... | 1.25 | 17 | 2.90 | 3.60 | 5.70 | 1.00 | 1.30 |
| 2 | 2.20 | 3.80 | 3.60 | ..... | 1.10 | 18 | 3.30 | 3.50 | 5.80 | 1.00 | 1.30 |
| 3 | 2.30 | 3.10 | 4.40 | ..... | 1.35 | 19 | 2.90 | 3.50 | 6.90 | 1.00 | 1.60 |
| 4 | 2.50 | 3.00 | 3.65 | ..... | 1.60 | 20 | 3.30 | 3.70 | 5.70 | 1.00 | 1.70 |
| 5 | 2.80 | 3.30 | 3.60 | ..... | 2.30 | 21 | 3.30 | 4.30 | 5.60 | 1.00 | 3.40 |
| 6 | 2.40 | 5.52 | 7.50 | ..... | 1.60 | 22 | 3.30 | 4.55 | 5.40 | 1.00 | 2.60 |
| 7 | 2.40 | 4.70 | 5.60 | 1.05 | 1.30 | 23 | 3.25 | 4.90 | 5.10 | 1.00 | 2.05 |
| 8 | 2.40 | 4.10 | 4.90 | 1.00 | 1.25 | 24 | 3.00 | 8.85 | 5.00 | 1.00 | 1.70 |
| 9 | 2.40 | 4.00 | 5.00 | 1.15 | 1.20 | 25 | 2.90 | 5.30 | 4.80 | 1.00 | 1.60 |
| 10 | 2.30 | 3.80 | 7.10 | 1.10 | 1.15 | 26 | 2.85 | 4.70 | ..... | 1.00 | 1.70 |
| 11 | 2.30 | 4.00 | 5.30 | 1.00 | 1.15 | 27 | 2.80 | 4.30 | ..... | 1.40 | 1.65 |
| 12 | 2.40 | 5.40 | 9.15 | 1.00 | 1.15 | 28 | 2.20 | 3.90 | ..... | 1.20 | 1.50 |
| 13 | 2.30 | 5.00 | 6.80 | 1.00 | 1.30 | 29 | 2.20 | ..... | ..... | 1.30 | 1.45 |
| 14 | 3.00 | 4.15 | 7.70 | 1.00 | 2.00 | 30 | 2.60 | ..... | ..... | 1.30 | 1.40 |
| 15 | 2.80 | 3.90 | 6.20 | 1.00 | 1.70 | 31 | 2.90 | ..... | ..... | ..... | 1.50 |
| 16 | 2.60 | 3.80 | 6.90 | 1.00 | 1.40 | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1898.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.50 | 1.80 | 1.50 | 3.10 | 2.00 | 1.50 | 1.40 | 2.30 | 2.00 | 1.85 | 2.00 | 2.20 |
| 2 | 1.20 | 1.75 | 1.40 | 2.80 | 1.90 | 1.40 | 1.35 | 2.40 | 3.10 | 1.70 | 1.95 | 2.15 |
| 3 | 1.30 | 1.75 | 1.40 | 2.60 | 1.85 | 1.35 | 1.30 | 2.50 | 8.50 | 1.70 | 1.90 | 2.00 |
| 4 | 1.40 | 1.85 | 1.40 | 2.50 | 1.80 | 1.35 | 1.40 | 7.80 | 4.50 | 7.60 | 1.80 | 2.70 |
| 5 | 1.40 | 1.70 | 1.35 | 2.80 | 2.00 | 1.30 | 1.50 | 4.10 | 6.00 | 5.70 | 1.80 | 2.50 |
| 6 | 1.35 | 1.60 | 1.35 | 2.50 | 1.90 | 1.30 | 1.55 | 3.50 | 3.80 | 4.30 | 1.95 | 2.25 |
| 7 | 1.50 | 1.65 | 1.35 | 2.50 | 1.85 | 1.30 | 1.60 | 2.80 | 3.60 | 3.60 | 1.90 | 2.20 |
| 8 | 1.40 | 1.60 | 1.35 | 2.40 | 1.85 | 1.30 | 1.60 | 2.60 | 3.50 | 3.20 | 1.90 | 2.00 |
| 9 | 1.50 | 1.60 | 1.30 | 2.25 | 1.80 | 1.30 | 1.50 | 2.50 | 3.25 | 2.90 | 2.15 | 2.00 |
| 10 | 1.60 | 1.60 | 1.30 | 2.65 | 1.80 | 1.30 | 1.40 | 2.30 | 2.70 | 2.80 | 2.50 | 1.90 |
| 11 | 1.60 | 1.55 | 1.30 | 2.40 | 1.80 | 1.25 | 1.30 | 5.30 | 2.50 | 2.80 | 2.00 | 1.80 |
| 12 | 2.25 | 1.65 | 1.35 | 2.25 | 1.80 | 1.40 | 1.30 | 3.50 | 2.30 | 2.90 | 2.00 | 1.80 |
| 13 | 2.25 | 1.55 | 1.60 | 2.20 | 1.75 | 1.40 | 1.30 | 3.20 | 2.10 | 2.40 | 2.00 | 1.75 |
| 14 | 2.00 | 1.55 | 1.60 | 2.40 | 1.60 | 1.40 | 3.50 | 3.00 | 2.10 | 2.30 | 2.00 | 1.60 |
| 15 | 1.90 | 1.45 | 1.70 | 2.30 | 1.60 | 1.30 | 2.00 | 2.90 | 2.00 | 2.25 | 1.90 | 1.70 |
| 16 | 2.10 | 1.40 | 1.65 | 2.25 | 2.00 | 1.50 | 2.00 | 2.50 | 2.00 | 2.25 | 2.00 | 1.70 |
| 17 | 1.90 | 1.40 | 1.70 | 2.15 | 1.60 | 1.90 | 1.70 | 2.40 | 2.00 | 5.30 | 2.10 | 1.90 |
| 18 | 1.75 | 1.50 | 2.10 | 2.10 | 1.60 | 1.70 | 1.70 | 2.50 | 1.90 | 3.40 | 2.50 | 1.80 |
| 19 | 2.20 | 1.60 | 1.90 | 2.20 | 2.00 | 1.70 | 1.50 | 2.30 | 1.90 | 2.80 | 2.50 | 1.80 |
| 20 | 3.50 | 1.60 | 1.70 | 2.10 | 1.90 | 1.60 | 1.40 | 2.30 | 1.85 | 2.80 | 2.40 | 2.25 |
| 21 | 2.50 | 1.55 | 1.60 | 2.00 | 1.60 | 1.40 | 1.50 | 2.20 | 1.70 | 2.70 | 2.20 | 2.20 |
| 22 | 2.20 | 1.50 | 1.50 | 1.95 | 1.60 | 1.30 | 1.55 | 2.10 | 4.30 | 2.55 | 2.50 | 2.00 |
| 23 | 2.60 | 1.40 | 1.50 | 2.10 | 1.80 | 1.30 | 1.60 | 2.00 | 3.30 | 2.45 | 2.40 | 1.90 |
| 24 | 2.80 | 1.45 | 1.70 | 2.05 | 1.80 | 1.35 | 1.60 | 2.10 | 2.80 | 2.45 | 2.25 | 2.35 |
| 25 | 4.50 | 1.40 | 1.50 | 2.50 | 1.55 | 1.40 | 1.90 | 2.00 | 2.30 | 2.20 | 2.40 | 2.85 |
| 26 | 3.80 | 1.40 | 1.50 | 2.40 | 1.55 | 1.30 | 1.90 | 1.90 | 2.00 | 2.30 | 2.20 | 2.50 |
| 27 | 2.70 | 1.40 | 1.60 | 2.40 | 1.50 | 1.30 | 2.10 | 1.90 | 1.90 | 2.15 | 2.00 | 2.25 |
| 28 | 2.50 | 1.35 | 1.70 | 2.20 | 1.50 | 1.40 | 2.40 | 1.80 | 1.90 | 2.10 | 2.00 | 2.90 |
| 29 | 2.20 | ..... | 6.70 | 2.10 | 1.50 | 1.35 | 2.00 | 1.75 | 1.85 | 2.05 | 2.40 | 2.80 |
| 30 | 2.10 | ..... | 5.50 | 2.00 | 1.50 | 1.30 | 2.00 | 2.00 | 1.85 | 2.10 | 2.25 | 2.80 |
| 31 | 2.00 | ..... | 3.80 | ..... | 1.50 | ..... | 2.20 | 2.20 | ..... | 2.00 | ..... | 2.60 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1899-1900.

| 1899. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.50 | 2.05 | 3.20 | 3.40 | 2.30 | 1.80 | 1.50 | 1.40 | 1.40 | 1.00 | 1.00 | 1.50 |
| 2 | 2.50 | 1.85 | 3.00 | 3.05 | 2.30 | 1.80 | 1.50 | 1.40 | 1.40 | 1.00 | 1.00 | 1.40 |
| 3 | 2.05 | 3.00 | 2.25 | 3.50 | 2.50 | 2.00 | 1.50 | 1.40 | 1.35 | 1.00 | 1.80 | 1.40 |
| 4 | 2.20 | 9.00 | 3.30 | 3.20 | 2.60 | 1.70 | 1.50 | 1.40 | 1.30 | 1.00 | 1.70 | 1.20 |
| 5 | 2.60 | ..... | 3.50 | 3.10 | 2.60 | 1.70 | 1.50 | 1.40 | 1.30 | 1.00 | 1.20 | 1.20 |
| 6 | 3.00 | 7.50 | 3.40 | 3.10 | 3.00 | 1.70 | 1.80 | 1.30 | 1.30 | 1.00 | 1.15 | 1.20 |
| 7 | 2.60 | 7.00 | 3.25 | 3.10 | 3.00 | 1.70 | 1.80 | 1.30 | 1.20 | 1.00 | 1.05 | 1.20 |
| 8 | 2.55 | 5.30 | 3.00 | 3.00 | 2.90 | 1.70 | 1.70 | 1.30 | 1.20 | 2.00 | 1.05 | 1.20 |
| 9 | 2.50 | 3.50 | 2.95 | 3.60 | 2.85 | 1.70 | 1.60 | 1.30 | 1.20 | 1.50 | 1.00 | 1.50 |
| 10 | 2.80 | 3.00 | 2.80 | 3.20 | 2.60 | 1.80 | 1.60 | 1.40 | 1.20 | 1.40 | 1.00 | 1.30 |
| 11 | 2.30 | 3.20 | 2.80 | 3.00 | 2.60 | 1.80 | 1.50 | 1.40 | 1.20 | 1.40 | 1.00 | 1.50 |
| 12 | (*) | 3.00 | 2.65 | 3.00 | 2.35 | 3.50 | 1.40 | 1.40 | 1.20 | 1.30 | 1.00 | 6.50 |
| 13 | (*) | 2.80 | 2.60 | 2.90 | 2.30 | 2.80 | 1.30 | 1.40 | 1.20 | 1.25 | 1.00 | 2.90 |
| 14 | 2.60 | 2.80 | 3.40 | 2.90 | 2.20 | 2.20 | 1.30 | 1.40 | 1.20 | 1.10 | 1.00 | 2.00 |
| 15 | 2.30 | 2.70 | 9.60 | 2.85 | 2.20 | 2.10 | 1.30 | 1.30 | 1.20 | 1.00 | 1.00 | 1.65 |
| 16 | 2.20 | 2.70 | 6.50 | 2.80 | 2.25 | 2.00 | 1.30 | 1.30 | 1.20 | 1.00 | 1.00 | 1.50 |
| 17 | 2.20 | 2.70 | 4.80 | 2.60 | 2.20 | 2.00 | 1.50 | 1.30 | 1.15 | 1.00 | 1.00 | 1.30 |
| 18 | 2.20 | 2.60 | 4.90 | 2.60 | 2.25 | 2.00 | 1.30 | 1.30 | 1.15 | 1.00 | 1.00 | 1.30 |
| 19 | 2.10 | 2.50 | 11.00 | 2.55 | 2.25 | 1.80 | 1.30 | 1.30 | 1.10 | 1.00 | 1.00 | 1.90 |
| 20 | 2.10 | 2.50 | 5.80 | 2.50 | 2.20 | 1.70 | 1.30 | 1.20 | 1.25 | 2.00 | 1.05 | 1.50 |
| 21 | 2.05 | 2.50 | 4.60 | 2.50 | 2.10 | 1.70 | 1.40 | 1.20 | 1.05 | 1.15 | 1.50 | 1.50 |
| 22 | 2.00 | 2.45 | 4.80 | 2.45 | 2.00 | 1.60 | 1.40 | 1.20 | 1.00 | 1.10 | 1.50 | 1.50 |
| 23 | 2.00 | 2.40 | 4.30 | 2.40 | 2.00 | 1.60 | 1.50 | 1.20 | 1.00 | 1.10 | 1.30 | 1.50 |
| 24 | 2.20 | 2.35 | 3.70 | 3.00 | 2.00 | 1.60 | 1.50 | 1.20 | 1.00 | 1.10 | 1.20 | 1.90 |
| 25 | 2.05 | 2.30 | 3.60 | 2.90 | 2.00 | 1.50 | 1.50 | 1.20 | 1.00 | 1.10 | 1.20 | 1.90 |
| 26 | 2.00 | 3.40 | 3.60 | 2.80 | 1.90 | 1.80 | 1.50 | 1.20 | 1.00 | 1.10 | 1.20 | 1.90 |
| 27 | 2.00 | 7.00 | 4.00 | 2.80 | 1.90 | 1.70 | 1.50 | 1.20 | 1.00 | 1.05 | 1.20 | 1.80 |
| 28 | 1.95 | 3.50 | 3.60 | 2.60 | 1.90 | 1.60 | 2.00 | 1.30 | 1.00 | 1.05 | 1.50 | 1.70 |
| 29 | 1.90 | ..... | 3.50 | 2.50 | 1.80 | 1.60 | 2.00 | 1.35 | 1.00 | 1.05 | 1.45 | 1.70 |
| 30 | 1.80 | ..... | 3.40 | 2.40 | 1.80 | 1.60 | 1.60 | 1.50 | 1.00 | 1.00 | 1.30 | 1.50 |
| 31 | 2.00 | ..... | 4.00 | ..... | 1.80 | ..... | 1.50 | 1.50 | ..... | 1.00 | ..... | 1.50 |
| 1900. | | | | | | | | | | | | |
| 1 | 1.50 | 2.75 | 2.60 | 2.15 | 2.30 | 1.50 | 2.50 | 1.60 | 1.40 | 1.20 | 1.35 | 1.50 |
| 2 | 1.50 | 2.75 | 2.55 | 2.15 | 2.20 | 1.60 | 2.40 | 1.60 | 1.50 | 1.20 | 1.35 | 1.40 |
| 3 | 1.50 | 1.60 | 2.30 | 2.40 | 2.30 | 1.60 | 2.40 | 1.50 | 1.40 | 1.20 | 2.10 | 3.30 |
| 4 | 1.50 | 1.60 | 2.60 | 2.30 | 2.10 | 1.70 | 2.20 | 1.50 | 1.30 | 1.25 | 1.70 | 2.50 |
| 5 | 1.50 | 1.80 | 2.80 | 2.25 | 2.10 | 2.10 | 2.20 | 1.50 | 1.30 | 1.25 | 1.50 | 2.20 |
| 6 | 1.50 | 1.65 | 3.30 | 2.25 | 2.10 | 2.00 | 2.10 | 1.50 | 1.30 | 1.20 | 1.50 | 2.00 |
| 7 | 1.50 | 1.60 | 3.50 | 2.20 | 2.00 | 1.90 | 2.00 | 1.40 | 1.20 | 1.20 | 1.40 | 1.80 |
| 8 | 1.60 | 2.00 | 3.90 | 2.15 | 2.00 | 1.90 | 2.00 | 1.40 | 1.20 | 1.20 | 1.40 | 1.70 |
| 9 | 1.60 | 3.10 | 3.90 | 2.15 | 2.30 | 2.10 | 2.10 | 1.40 | 1.20 | 1.20 | 1.30 | 1.60 |
| 10 | 2.80 | 2.50 | 3.85 | 2.20 | 2.00 | 2.00 | 1.80 | 1.40 | 1.20 | 1.15 | 1.30 | 1.60 |
| 11 | 3.10 | 2.00 | 3.75 | 2.40 | 1.90 | 1.90 | 2.00 | 1.40 | 1.20 | 1.15 | 1.30 | 1.60 |
| 12 | 2.70 | 4.00 | 3.60 | 2.40 | 1.80 | 1.90 | 1.90 | 1.40 | 1.15 | 1.20 | 1.30 | 1.55 |
| 13 | 2.90 | 8.00 | 3.50 | 2.70 | 1.80 | 1.90 | 2.00 | 1.50 | 1.15 | 1.35 | 1.30 | 1.50 |
| 14 | 2.80 | 4.80 | 2.40 | 2.30 | 1.80 | 1.90 | 2.00 | 1.50 | 1 80 | 1.20 | 1.30 | 1.50 |
| 15 | 2.70 | 4.20 | 2.40 | 2.10 | 1.70 | 1.80 | 2.00 | 1.40 | 2.90 | 1.20 | 1.30 | 1.45 |
| 16 | 2.50 | 4.15 | 2.35 | 2.20 | 1.70 | 3.00 | 1.90 | 1.40 | 2.10 | 1.20 | 1.30 | 1.40 |
| 17 | 2.50 | 4.00 | 3.00 | 2.20 | 1.70 | 3.60 | 1.90 | 1.40 | 1.70 | 1.15 | 1.25 | 1.40 |
| 18 | 2.40 | 3.85 | 3.50 | 3.50 | 1.70 | 3.40 | 1.90 | 1.25 | 1.50 | 1.10 | 1.20 | 1.40 |
| 19 | 2.30 | 3.70 | 2.65 | 3.00 | 1.70 | 3.00 | 1.80 | 1.30 | 1.40 | 1.10 | 1.20 | 1.40 |
| 20 | 2.30 | 3.50 | 3.00 | 2.80 | 1.70 | 2.40 | 1.80 | 1.30 | 1.40 | 1.10 | 1.15 | 1.80 |
| 21 | 2.30 | 3.40 | 2.85 | 3.90 | 1.60 | 2.20 | 2.00 | 1.30 | 1.40 | 1.10 | 1.35 | 2.30 |
| 22 | 2.80 | 3.20 | 2.60 | 2.80 | 1.60 | 3.40 | 2.10 | 1.90 | 1.35 | 1.20 | 1.30 | 1.70 |
| 23 | 2.80 | 3.00 | 6.45 | 3.30 | 1.60 | 3.50 | 2.00 | 1.50 | 1.50 | 5.20 | 1.25 | 2.30 |
| 24 | 2.80 | 3.00 | 2.50 | 2.50 | 1.85 | 4.30 | 1.80 | 1.50 | 1.35 | 2.20 | 1.20 | 2.00 |
| 25 | 2.60 | 3.00 | 3.00 | 2.60 | 1.90 | 3.00 | 1.60 | 1.30 | 1.30 | 1.80 | 3.10 | 1.80 |
| 26 | 2.50 | 2.80 | 2.60 | 2.70 | 1.80 | 2.90 | 1.60 | 1.50 | 1.30 | 1.60 | 4.80 | 1.70 |
| 27 | 2.50 | 2.80 | 2.55 | 2.60 | 1.60 | 2.70 | 2.50 | 1.50 | 1.25 | 1.40 | 2.10 | 1.60 |
| 28 | 2.40 | 2.80 | 2.40 | 2.50 | 1.60 | 2.50 | 2.40 | 1.40 | 1.25 | 1.40 | 1.80 | 1.70 |
| 29 | 2.40 | ..... | 2.35 | 2.30 | 1.60 | 3.50 | 2.20 | 1.40 | 1.20 | 1.40 | 1.70 | 1.60 |
| 30 | 2.40 | ..... | 2.35 | 2.50 | 1.50 | 3.00 | 2.00 | 1.40 | 1.20 | 1.40 | 1.60 | 1.80 |
| 31 | 2.40 | ..... | 2.20 | ..... | 1.40 | ..... | 1.60 | 1.50 | ..... | 1.35 | ..... | 2.50 |

*River frozen.

Daily Gage Height, in Feet, of Tuckaseegee River at Bryson, N. C., for 1901-1902.

| 1901. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 1.70 | 1.60 | 2.70 | 2.40 | 2.50 | 1.90 | 1.40 | 2.80 | 1.70 | 1.40 | 1.20 |
| 2 | 1.90 | 1.70 | 1.60 | 5.60 | 2.40 | 2.40 | 2.00 | 1.35 | 2.60 | 1.70 | 1.40 | 1.20 |
| 3 | 1.80 | 2.20 | 1.50 | 4.40 | 2.30 | 2.40 | 2.40 | 1.30 | 2.45 | 1.70 | 1.35 | 1.80 |
| 4 | 1.70 | 3.00 | 1.50 | 3.80 | 1.30 | 2.30 | 1.80 | 1.30 | 2.40 | 1.65 | 1.35 | 1.50 |
| 5 | 1.65 | 2.30 | 2.30 | 3.50 | 2.20 | 2.30 | 1.80 | 1.50 | 2.50 | 1.60 | 1.35 | 1.40 |
| 6 | 1.60 | 2.00 | 1.60 | 3.30 | 2.20 | 2.20 | 2.60 | 7.00 | 2.20 | 1.60 | 1.30 | 1.40 |
| 7 | 1.60 | 2.00 | 1.50 | 3.00 | 2.20 | 2.60 | 2.00 | 3.50 | 2.10 | 1.60 | 1.30 | 1.30 |
| 8 | 1.55 | 1.90 | 1.60 | 2.80 | 2.20 | 2.30 | 2.20 | 2.00 | 2.00 | 1.55 | 1.30 | 1.30 |
| 9 | 1.55 | 2.60 | 2.60 | 2.70 | 2.10 | 2.20 | 1.80 | 1.80 | 1.90 | 1.55 | 1.30 | 1.50 |
| 10 | 2.60 | 2.10 | 3.60 | 2.60 | 2.00 | 2.10 | 1.70 | 1.80 | 2.00 | 1.55 | 1.30 | 2.40 |
| 11 | 7.10 | 2.10 | 2.50 | 2.50 | 2.00 | 2.00 | 1.60 | 1.80 | 1.80 | 1.50 | 1.40 | 1.70 |
| 12 | 4.30 | 2.00 | 2.10 | 2.30 | 1.90 | 2.20 | 1.55 | 2.30 | 2.80 | 1.50 | 1.30 | 1.40 |
| 13 | 3.20 | 2.00 | 2.00 | 3.00 | 1.90 | 2.30 | 1.50 | 4.10 | 2.10 | 2.50 | 1.30 | 1.50 |
| 14 | 2.80 | 1.90 | 1.90 | 2.80 | 1.90 | 3.00 | 1.50 | 3.60 | 2.00 | 1.80 | 1.30 | 8.80 |
| 15 | 2.60 | 1.90 | 1.80 | 2.60 | 1.80 | 2.50 | 1.50 | 5.00 | 1.90 | 1.60 | 1.25 | 4.50 |
| 16 | 2.30 | 1.85 | 1.80 | 2.50 | 1.80 | 2.50 | 1.55 | 4.50 | 1.80 | 1.60 | 1.25 | 3.80 |
| 17 | 2.20 | 1.80 | 1.70 | 2.40 | 1.80 | 2.30 | 1.50 | 5.15 | 3.80 | 1.50 | 1.25 | 2.60 |
| 18 | 2.00 | 1.80 | 1.70 | 2.40 | 1.80 | 2.30 | 2.00 | 4.50 | 2.00 | 1.50 | 1.25 | 2.30 |
| 19 | 1.95 | 1.80 | 1.70 | 2.60 | 2.90 | 2.20 | 1.70 | 4.60 | 2.20 | 1.45 | 1.20 | 2.10 |
| 20 | 1.90 | 1.70 | 1.90 | 4.30 | 2.30 | 2.20 | 1.70 | 3.40 | 2.10 | 1.45 | 1.20 | 2.10 |
| 21 | 1.90 | 1.60 | 2.80 | 3.70 | 8.25 | 2.60 | 1.65 | 3.50 | 2.00 | 1.45 | 1.20 | 1.90 |
| 22 | 1.80 | 1.60 | 1.90 | 3.20 | 5.40 | 2.20 | 1.50 | 5.00 | 1.90 | 1.40 | 1.20 | 2.00 |
| 23 | 1.80 | 1.50 | 1.90 | 3.00 | 3.50 | 2.00 | 1.50 | 3.80 | 1.85 | 1.40 | 1.50 | 2.00 |
| 24 | 2.00 | 1.50 | 2.10 | 2.80 | 3.00 | 2.10 | 1.45 | 3.40 | 1.80 | 1.40 | 1.40 | 2.00 |
| 25 | 1.80 | 1.50 | 5.00 | 2.80 | 3.35 | 3.00 | 1.40 | 3.00 | 1.75 | 1.40 | 1.30 | 2.00 |
| 26 | 1.70 | 1.50 | 6.75 | 2.70 | 3.30 | 2.10 | 1.40 | 2.80 | 1.75 | 1.40 | 1.30 | 2.10 |
| 27 | 2.00 | 1.50 | 4.00 | 2.70 | 3.00 | 2.00 | 1.50 | 3.40 | 1.80 | 1.40 | 1.25 | 3.50 |
| 28 | 1.70 | 1.50 | 3.30 | 2.70 | 2.90 | 2.00 | 1.40 | 3.60 | 1.80 | 1.40 | 1.25 | 3.20 |
| 29 | 1.60 | ------ | 3.00 | 2.60 | 2.80 | 2.00 | 1.40 | 3.40 | 1.80 | 1.40 | 1.20 | 9.90 |
| 30 | 2.00 | ------ | 3.10 | 2.50 | 2.90 | 2.00 | 1.40 | 3.00 | 1.80 | 1.40 | 1.20 | 4.80 |
| 31 | 1.80 | ------ | 2.80 | ------ | 2.80 | ------ | 1.50 | 3.00 | ------ | 1.40 | ------ | 3.80 |
| 1902. | | | | | | | | | | | | |
| 1 | 3.30 | 3.95 | 4.90 | 3.10 | 2.20 | 1.90 | 1.50 | 1.10 | 0.95 | 1.50 | 1.10 | 1.80 |
| 2 | 3.00 | 4.10 | 4.00 | 2.90 | 2.10 | 1.60 | 1.40 | 1.05 | .95 | 1.30 | 1.10 | 1.60 |
| 3 | 2.80 | 3.20 | 3.50 | 2.80 | 1.90 | 1.55 | 1.35 | 1.20 | 1.35 | 1.25 | 1.10 | 2.80 |
| 4 | 2.60 | 2.90 | 3.20 | 2.70 | 1.90 | 1.50 | 1.30 | 1.10 | 1.20 | 1.30 | 1.10 | 2.20 |
| 5 | 2.40 | 2.50 | 3.10 | 2.60 | 1.90 | 1.50 | 1.40 | 1.10 | 1.10 | 1.35 | 1.20 | 2.20 |
| 6 | 2.40 | 2.50 | 3.10 | 2.50 | 1.90 | 1.45 | 1.50 | 1.40 | 1.10 | 1.30 | 2.50 | 1.90 |
| 7 | 2.30 | 2.40 | 2.90 | 2.90 | 1.90 | 1.50 | 1.40 | 1.15 | 1.00 | 1.25 | 1.50 | 1.80 |
| 8 | 2.25 | 2.30 | 3.30 | 2.70 | 1.85 | 1.50 | 1.30 | 1.10 | 1.00 | 1.20 | 1.40 | 1.70 |
| 9 | 2.20 | 2.10 | 3.00 | 2.50 | 1.80 | 1.50 | 1.60 | 1.05 | 2.70 | 1.20 | 1.30 | 1.60 |
| 10 | 2.10 | 2.00 | 2.90 | 2.40 | 1.75 | 1.40 | 1.50 | 1.05 | 1.70 | 1.10 | 1.25 | 1.60 |
| 11 | 2.05 | 1.90 | 2.80 | 2.40 | 1.75 | 1.40 | 1.40 | 1.00 | 1.20 | 1.30 | 1.20 | 1.50 |
| 12 | 2.00 | 2.00 | 2.80 | 2.35 | 1.75 | 1.35 | 1.75 | 1.00 | 1.10 | 1.30 | 1.20 | 1.50 |
| 13 | 1.90 | 1.90 | 3.20 | 2.30 | 1.75 | 1.40 | 1.40 | 1.00 | 1.50 | 1.30 | 1.20 | 1.50 |
| 14 | 2 00 | 1.40 | 2.80 | 2.25 | 1.80 | 1.40 | 1.30 | 1.00 | 1.20 | 1.75 | 1.15 | 1.50 |
| 15 | 1.90 | 2.00 | 2.70 | 2.20 | 1.75 | 1.40 | 1.40 | 1.00 | 1.10 | 1.30 | 1.15 | 4.00 |
| 16 | 1.90 | 2.00 | 5.25 | 2.20 | 1.70 | 1.60 | 1.30 | 1.20 | 1.10 | 1.30 | 1.10 | 2.10 |
| 17 | 1.80 | 1.90 | 3.65 | 2.35 | 1.75 | 1.50 | 1.25 | 1.00 | 1.00 | 1.25 | 1.20 | 2.00 |
| 18 | 1.80 | 1.80 | 3.00 | 2.20 | 1.70 | 1.40 | 1.20 | 1.00 | 1.00 | 1.20 | 1.50 | 1.90 |
| 19 | 1.80 | 1.80 | 2.90 | 2.20 | 2.00 | 1.40 | 1.30 | 1.10 | 4.00 | 1.20 | 1.30 | 1.80 |
| 20 | 1.80 | 2.00 | 2.75 | 2.20 | 1.80 | 1.40 | 1.30 | 1.00 | 2.00 | 1.20 | 1.20 | 1.70 |
| 21 | 1.90 | 2.20 | 2.70 | 2.15 | 1.80 | 1.80 | 1.25 | 1.00 | 1.80 | 1.15 | 1.20 | 3.70 |
| 22 | 1.80 | 2.15 | 2.60 | 2.10 | 1.80 | 1.45 | 1.20 | 1.00 | 1.20 | 1.10 | 1.20 | 2.30 |
| 23 | 1.75 | 2.00 | 2.50 | 2.00 | 1.90 | 1.40 | 1.20 | 1.00 | 1.20 | 1.10 | 1.15 | 2.10 |
| 24 | 1.70 | 2.00 | 2.40 | 2.00 | 1.75 | 1.35 | 1.20 | .95 | 1.40 | 1.10 | 1.15 | 1.90 |
| 25 | 1.65 | 2.30 | 2.40 | 2.00 | 2.00 | 1.30 | 1.10 | .90 | 2.10 | 1.10 | 3.45 | 1.80 |
| 26 | 1.80 | 2.10 | 2.30 | 2.00 | 1.75 | 1.60 | 1.10 | 1.10 | 1.70 | 1.10 | 2.10 | 1.70 |
| 27 | 2.40 | 3.00 | 2.30 | 1.95 | 1.70 | 1.80 | 1.10 | 1.15 | 1.50 | 1.10 | 1.80 | 1.60 |
| 28 | 2.30 | 9.90 | 4.50 | 1.90 | 1.65 | 1.50 | 1.20 | 1.10 | 1.40 | 1.10 | 1.60 | 1.80 |
| 29 | 2.40 | ------ | 6.25 | 2.10 | 1.60 | 1.50 | 1.20 | 1.10 | 1.30 | 1.10 | 1.40 | 1.80 |
| 30 | 3.20 | ------ | 3.90 | 2.10 | 1.60 | 1.70 | 1.20 | 1.10 | 1.40 | 1.10 | 1.60 | 1.80 |
| 31 | 3.80 | ------ | 3.40 | ------ | 1.60 | ------ | 1.10 | 1.10 | ------ | 1.10 | ------ | 1.60 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1903 AND 1904.

| 1903. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.80 | 1.60 | 4.00 | 3.30 | 2.25 | 2.50 | 1.50 | 1.30 | 1.10 | 0.95 | 1.00 | 0.90 |
| 2 | 1.90 | 1.75 | 3.40 | 3.10 | 2.20 | 2.65 | 1.50 | 1.70 | 1.10 | .95 | 1.00 | .90 |
| 3 | 2.50 | 2.00 | 3.10 | 2.90 | 2.20 | 2.20 | 1.50 | 1.50 | 1.10 | .95 | 1.00 | .90 |
| 4 | 2.10 | 5.75 | 2.80 | 3.30 | 2.20 | 2.10 | 1.50 | 1.40 | 1.20 | .95 | 1.10 | .90 |
| 5 | 1.90 | 3.15 | 3.00 | 2.90 | 2.10 | 3.05 | 1.65 | 1.50 | 1.10 | .90 | 1.35 | 1.00 |
| 6 | 1.85 | 2.65 | 3.00 | 2.80 | 2.05 | 3.30 | 1.60 | 1.35 | 1.10 | .90 | 1.10 | 1.00 |
| 7 | 1.70 | 2.95 | 2.90 | 3.30 | 2.00 | 2.70 | 1.55 | 1.25 | 1.05 | 1.00 | 1.00 | .90 |
| 8 | 1.70 | 3.85 | 4.35 | 6.50 | 2.00 | 2.30 | 1.50 | 1.20 | 1.10 | 1.60 | 1.00 | 1.00 |
| 9 | 1.60 | 3.00 | 3.50 | 3.60 | 2.00 | 2.20 | 1.50 | 1.20 | 1.10 | 1.05 | 1.00 | 1.00 |
| 10 | 1.70 | 2.70 | 3.60 | 3.40 | 1.95 | 2.30 | 1.80 | 1.20 | 1.10 | 1.00 | 1.00 | .95 |
| 11 | 2.30 | 4.20 | 4.20 | 3.30 | 1.90 | 2.20 | 1.70 | 1.50 | 1.05 | 1.00 | 1.00 | .90 |
| 12 | 1.90 | 3.50 | 3.70 | 3.10 | 1.90 | 2.10 | 1.70 | 1.30 | 1.00 | .95 | 1.05 | 1.00 |
| 13 | 1.75 | 3.00 | 3.30 | 4.75 | 1.90 | 1.95 | 1.95 | 1.25 | 1.00 | .95 | 1.10 | 1.30 |
| 14 | 1.80 | 2.80 | 3.10 | 4.00 | 1.90 | 1.90 | 1.60 | 1.30 | 1.00 | .95 | 1.10 | 1.10 |
| 15 | 1.70 | 2.70 | 3.00 | 3.60 | 1.85 | 1.80 | 1.50 | 1.40 | 1.50 | .95 | 1.10 | 1.10 |
| 16 | 1.60 | 5.00 | 2.80 | 3.40 | 1.80 | 1.75 | 1.50 | 1.50 | 1.40 | .95 | 1.00 | .95 |
| 17 | 1.60 | 4.90 | 2.70 | 3.20 | 1.80 | 1.70 | 1.70 | 1.25 | 1.20 | 1.30 | 4.00 | .90 |
| 18 | 1.60 | 3.50 | 2.60 | 3.10 | 1.75 | 1.75 | 1.45 | 1.40 | 1.10 | 1.10 | 1.75 | .90 |
| 19 | 1.55 | 3.10 | 2.50 | 3.00 | 1.75 | 1.65 | 1.50 | 1.40 | 1.05 | 1.05 | 1.20 | 1.00 |
| 20 | 1.55 | 3.00 | 2.40 | 3.30 | 1.70 | 1.85 | 1.40 | 1.30 | 1.05 | 1.00 | 1.10 | 1.80 |
| 21 | 1.60 | 2.80 | 2.80 | 3.10 | 1.75 | 1.70 | 1.40 | 1.20 | 1.05 | 1.00 | 1.10 | 1.30 |
| 22 | 1.55 | 2.50 | 4.45 | 2.90 | 1.75 | 1.65 | 1.35 | 1.20 | 1.00 | 1.00 | 1.10 | 1.15 |
| 23 | 1.50 | 2.30 | 8.20 | 2.75 | 1.70 | 1.65 | 1.35 | 1.20 | 1.00 | .95 | 1.10 | 1.10 |
| 24 | 1.60 | 2.25 | 5.15 | 2.60 | 1.70 | 1.55 | 1.30 | 1.15 | 1.00 | .95 | 1.05 | 1.10 |
| 25 | 1.55 | 2.20 | 4.00 | 2.70 | 1.65 | 1.55 | 1.30 | 1.15 | 1.00 | .95 | 1.00 | 1.40 |
| 26 | 1.50 | 2.10 | 3.60 | 2.60 | 1.60 | 1.75 | 1.25 | 1.10 | 1.00 | .95 | 1.00 | 1.40 |
| 27 | 1.55 | 2.50 | 3.30 | 2.50 | 1.60 | 1.65 | 1.25 | 1.10 | 1.00 | .95 | .90 | 1.10 |
| 28 | 1.80 | 7.80 | 3.10 | 2.40 | 1.65 | 1.60 | 1.60 | 1.10 | .95 | .95 | .90 | 1.30 |
| 29 | 1.80 | ------ | 3.20 | 2.35 | 1.95 | 1.55 | 1.40 | 1.10 | .95 | .95 | .95 | 1.10 |
| 30 | 1.80 | ------ | 4.30 | 2.30 | 2.20 | 1.50 | 1.40 | 1.25 | .95 | .95 | 1.00 | 1.10 |
| 31 | 1.70 | ------ | 3.60 | ------ | 2.10 | ------ | 1.35 | 1.10 | ------ | 1.00 | ------ | 1.00 |
| 1904. | | | | | | | | | | | | |
| 1 | 1.10 | 1.20 | 1.85 | 1.90 | 1.60 | 1.70 | 1.45 | 1.40 | 1.30 | 1.00 | 0.85 | 1.10 |
| 2 | 1.20 | 1.10 | 1.70 | 1.80 | 1.60 | 1.70 | 1.35 | 1.40 | 1.50 | 1.00 | .85 | 1.05 |
| 3 | 1.10 | 1.25 | 1.70 | 1.75 | 1.60 | 1.60 | 1.25 | 1.30 | 1.30 | .95 | 1.00 | 1.30 |
| 4 | 1.00 | 1.10 | 1.65 | 1.70 | 1.55 | 1.50 | 1.40 | 1.30 | 1.40 | .95 | 1.10 | 1.10 |
| 5 | .90 | 1.15 | 1.50 | 1.70 | 1.50 | 1.40 | 1.30 | 1.40 | 1.50 | .95 | 1.15 | 2.80 |
| 6 | 1.10 | 1.20 | 1.50 | 1.80 | 1.50 | 1.40 | 1.25 | 1.40 | 1.30 | .95 | 1.05 | 1.70 |
| 7 | 1.10 | 1.90 | 4.80 | 2.60 | 1.50 | 2.00 | 1.20 | 1.80 | 1.20 | .95 | .90 | 1.40 |
| 8 | 1.05 | 2.00 | 2.65 | 2.40 | 3.90 | 1.70 | 1.20 | 1.40 | 1.20 | .95 | .90 | 1.30 |
| 9 | 1.00 | 1.60 | 2.30 | 2.10 | 2.60 | 1.60 | 1.60 | 1.40 | 1.20 | .90 | .90 | 1.15 |
| 10 | 1.10 | 1.50 | 2.05 | 1.95 | 2.10 | 1.45 | 1.35 | 2.00 | 1.20 | .90 | .90 | 1.25 |
| 11 | 1.25 | 1.50 | 2.10 | 1.85 | 1.90 | 1.50 | 1.35 | 2.00 | 1.25 | .90 | .90 | 1.20 |
| 12 | 1.10 | 1.40 | 1.90 | 1.80 | 1.80 | 1.40 | 1.30 | 1.70 | 1.15 | .90 | .90 | 1.15 |
| 13 | 1.25 | 1.30 | 1.80 | 1.75 | 1.80 | 1.35 | 1.20 | 1.50 | 1.15 | .90 | 1.25 | 1.10 |
| 14 | 1.10 | 1.40 | 1.40 | 1.70 | 1.80 | 1.30 | 1.25 | 1.40 | 1.10 | .90 | 1.10 | 1.05 |
| 15 | 1.10 | 1.40 | 2.00 | 1.70 | 1.70 | 1.30 | 1.15 | 1.40 | 1.10 | .90 | 1.00 | 1.10 |
| 16 | 1.50 | 1.30 | 1.85 | 1.70 | 1.60 | 1.30 | 1.30 | 1.50 | 1.05 | .90 | .95 | 1.05 |
| 17 | 1.60 | 1.25 | 1.80 | 1.70 | 1.60 | 1.30 | 1.25 | 1.30 | 1.05 | .90 | .95 | 1.10 |
| 18 | 1.30 | 1.30 | 1.85 | 1.60 | 1.55 | 1.30 | 1.20 | 1.30 | 1.00 | .90 | .90 | 1.10 |
| 19 | 1.20 | 1.70 | 1.70 | 1.60 | 1.55 | 1.30 | 1.10 | 1.25 | 1.00 | .90 | .90 | 1.00 |
| 20 | 1.20 | 1.60 | 1.70 | 1.70 | 1.50 | 1.55 | 1.20 | 1.30 | 1.00 | .85 | .90 | .95 |
| 21 | 1.20 | 2.00 | 2.10 | 1.70 | 1.50 | 1.30 | 1.30 | 1.20 | 1.00 | .90 | 90 | 1.00 |
| 22 | 5.40 | 2.80 | 2.10 | 1.60 | 1.45 | 1.50 | 1.40 | 1.20 | 1.00 | .85 | 1.10 | .95 |
| 23 | 1.90 | 2.00 | 3.70 | 1.55 | 1.40 | 1.30 | 1.40 | 1.30 | 1.00 | .85 | 1.15 | 1.00 |
| 24 | 1.60 | 1.80 | 3.10 | 1.50 | 1.40 | 1.25 | 1.40 | 1.70 | 1.00 | .85 | 1.00 | 1.20 |
| 25 | 1.60 | 1.70 | 2.70 | 1.50 | 1.40 | 1.25 | 1.40 | 1.50 | 1.00 | .90 | 1.00 | 1.40 |
| 26 | 1.50 | 1.60 | 2.70 | 2.30 | 1.35 | 1.40 | 1.30 | 1.50 | .95 | .90 | .90 | 1.30 |
| 27 | 1.35 | 2.00 | 2.60 | 1.80 | 1.35 | 1.30 | 1.20 | 1.60 | .95 | .90 | .90 | 2.20 |
| 28 | 1.40 | 1.70 | 2.30 | 1.70 | 1.30 | 1.40 | 1.30 | 1.40 | 1.00 | .85 | .90 | 2.20 |
| 29 | 1.40 | 1.70 | 2.15 | 1.70 | 1.40 | 1.95 | 1.20 | 1.30 | 1.00 | .85 | .90 | 1.45 |
| 30 | 1.20 | ------ | 2.10 | 1.70 | 1.60 | 1.50 | 1.20 | 1.25 | 1.00 | .85 | 1.50 | 1.40 |
| 31 | 1.20 | ------ | 2.00 | ------ | 2.00 | ------ | 1.20 | 1 25 | ------ | .85 | ------ | 1.30 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.30 | 1.30 | 2.00 | 1.65 | 1.80 | 1.70 | 1.70 | 1.50 | 1.40 | 1.10 | 1.10 | 1.10 |
| 2 | 1.30 | 1.35 | 2.00 | 1.60 | 1.70 | 1.70 | 1.70 | 1.45 | 1.70 | 1.10 | 1.10 | 1.20 |
| 3 | 1.50 | 1.30 | 1.90 | 1.60 | 1.75 | 1.65 | 1.50 | 1.45 | 1.65 | 1.40 | 1.10 | 5.20 |
| 4 | 1.20 | 1.20 | 1.85 | 1.60 | 1.80 | 1.60 | 1.50 | 1.45 | 1.45 | 1.30 | 1.10 | 2.10 |
| 5 | 1.30 | 1.40 | 1.90 | 1.90 | 1.80 | 1.60 | 1.45 | 1.50 | 1.40 | 1.15 | 1.10 | 1.70 |
| 6 | 1.50 | 2.00 | 1.90 | 1.80 | 2.10 | 1.60 | 1.80 | 1.45 | 1.35 | 1.10 | 1.20 | 1.55 |
| 7 | 1.55 | 1.70 | 2.00 | 1.70 | 2.30 | 1.60 | 1.60 | 1.50 | 1.35 | 1.10 | 1.15 | 1.50 |
| 8 | 1.30 | 2.40 | 2.10 | 1.65 | 2.10 | 1.50 | 1.60 | 2.30 | 1.30 | 1.10 | 1.10 | 2.00 |
| 9 | 1.40 | 3.70 | 3.80 | 2.00 | 2.00 | 1.45 | 1.50 | 1.80 | 1.30 | 1.10 | 1.10 | 3.90 |
| 10 | 1.35 | 2.80 | 3.60 | 1.80 | 1.85 | 1.40 | 1.70 | 2.70 | 1.30 | 1.30 | 1.10 | 2.50 |
| 11 | 1.40 | 2.40 | 2.50 | 1.75 | 1.80 | 1.40 | 3.10 | 3.30 | 1.30 | 2.65 | 1.10 | 2.00 |
| 12 | 6.40 | 2.30 | 2.40 | 2.35 | 1.70 | 1.55 | 5.20 | 2.80 | 1.50 | 1.40 | 1.10 | 1.90 |
| 13 | 3.45 | 3.30 | 2.20 | 2.10 | 1.75 | 1.45 | 3.20 | 2.40 | 1.30 | 1.25 | 1.05 | 1.70 |
| 14 | 2.50 | 2.50 | 2.10 | 1.90 | 1.75 | 1.40 | 2.80 | 2.30 | 1.30 | 1.20 | 1.05 | 1.70 |
| 15 | 2.05 | 2.30 | 2.00 | 1.85 | 2.00 | 1.45 | 2.60 | 2.10 | 1.25 | 1.20 | 1.05 | 1.90 |
| 16 | 1.85 | 2.10 | 1.90 | 1.80 | 3.10 | 1.70 | 2.20 | 2.00 | 1.25 | 1.20 | 1.05 | 1.75 |
| 17 | 1.80 | 2.00 | 1.90 | 1.70 | 2.30 | 1.55 | 2.10 | 2.10 | 1.20 | 1.15 | 1.05 | 1.70 |
| 18 | 1.70 | 1.80 | 1.85 | 1.70 | 2.10 | 1.60 | 2.00 | 1.95 | 1.20 | 1.15 | 1.05 | 1.60 |
| 19 | 1.60 | 1.80 | 1.80 | 1.65 | 2.00 | 1.90 | 2.05 | 1.80 | 1.25 | 1.15 | 1.10 | 1.60 |
| 20 | 1.55 | 4.00 | 2.00 | 1.70 | 1.90 | 1.80 | 2.00 | 1.80 | 1.20 | 1.30 | 1.30 | 1.75 |
| 21 | 1.50 | 3.80 | 2.80 | 1.60 | 2.00 | 1.80 | 1.90 | 1.75 | 1.20 | 1.15 | 1.15 | 1.55 |
| 22 | 1.45 | 3.20 | 2.15 | 1.60 | 2.00 | 1.80 | 2.25 | 1.65 | 1.20 | 1.15 | 1.10 | 1.95 |
| 23 | 1.40 | 2.90 | 2.05 | 1.60 | 2.50 | 1.80 | 1.90 | 1.80 | 1.15 | 1.10 | 1.10 | 3.00 |
| 24 | 1.40 | 2.60 | 2.00 | 1.55 | 2.20 | 1.65 | 1.80 | 2.00 | 1.10 | 1.10 | 1.05 | 2.20 |
| 25 | 1.20 | 2.50 | 1.90 | 1.50 | 2.05 | 1.60 | 1.70 | 1.75 | 1.10 | 1.55 | 1.10 | 2.00 |
| 26 | 1.20 | 2.30 | 1.85 | 1.70 | 2.10 | 1.50 | 1.65 | 1.70 | 1.10 | 1.30 | 1.10 | 1.90 |
| 27 | 1.50 | 2.20 | 1.80 | 1.70 | 2.00 | 2.20 | 1.60 | 1.60 | 1.10 | 1.30 | 1.05 | 1.80 |
| 28 | 1.50 | 2.10 | 1.75 | 1.60 | 1.95 | 1.75 | 1.80 | 1.55 | 1.10 | 1.20 | 1.05 | 1.90 |
| 29 | 1.50 | ------- | 1.70 | 2.10 | 1.85 | 1.60 | 1.70 | 1.50 | 1.10 | 1.20 | 1.30 | 1.90 |
| 30 | 1.40 | ------- | 1.80 | 1.95 | 1.90 | 1.60 | 1.60 | 1.50 | 1.10 | 1.10 | 1.30 | 1.70 |
| 31 | 1.35 | ------- | 1.70 | ------- | 1.85 | ------- | 1.50 | 1.45 | ------- | 1.10 | ------ | 1.70 |
| 1906. | | | | | | | | | | | | |
| 1 | 1.60 | 2.20 | 1.60 | 2.70 | 2.00 | 1.55 | 1.65 | 2.20 | 2.50 | 3.80 | 1.75 | 1.95 |
| 2 | 1.60 | 2.15 | 1.60 | 2.45 | 1.90 | 2.50 | 1.60 | 2.40 | 2.25 | 4.80 | 1.75 | 1.90 |
| 3 | 5.50 | 2.00 | 3.60 | 2.30 | 2.10 | 1.50 | 2.00 | 2.30 | 2.40 | 4.60 | 1.70 | 2.00 |
| 4 | 3.60 | 1.95 | 2.30 | 2.20 | 2.00 | 1.70 | 2.10 | 2.20 | 2.40 | 3.90 | 1.70 | 1.90 |
| 5 | 2.90 | 2.00 | 2.00 | 2.15 | 1.90 | 1.90 | 1.80 | 2.00 | 3.20 | 3.50 | 1.70 | 1.85 |
| 6 | 2.50 | 1.95 | 1.90 | 2.30 | 2.00 | 1.90 | 2.10 | 2.10 | 2.60 | 4.20 | 1.70 | 2.30 |
| 7 | 2.30 | 1.90 | 1.85 | 2.10 | 2.00 | 1.70 | 1.90 | 2.00 | 2.40 | 3.40 | 1.65 | 1.90 |
| 8 | 2.20 | 1.85 | 2.00 | 2.05 | 1.90 | 1.60 | 2.00 | 1.90 | 2.20 | 3.10 | 1.65 | 1.80 |
| 9 | 2.05 | 1.80 | 1.90 | 2.50 | 1.80 | 1.60 | 1.90 | 1.70 | 2.10 | 2.90 | 1.60 | 1.80 |
| 10 | 1.90 | 1.80 | 1.80 | 2.40 | 1.70 | 1.70 | 1.65 | 1.70 | 2.00 | 2.70 | 1.60 | 2.20 |
| 11 | 1.90 | 1.75 | 1.75 | 2.25 | 1.70 | 1.70 | 1.65 | 1.70 | 1.90 | 2.50 | 1.90 | 2.30 |
| 12 | 2.10 | 1.85 | 1.70 | 2.15 | 1.70 | 1.65 | 1.60 | 1.65 | 2.00 | 2.40 | 1.70 | 2.00 |
| 13 | 2.00 | 1.80 | 1.70 | 2.10 | 1.70 | 3.70 | 1.60 | 1.60 | 2.00 | 2.45 | 1.70 | 1.90 |
| 14 | 2.10 | 1.80 | 1.90 | 3.75 | 1.65 | 2.20 | 2.40 | 1.90 | 1.80 | 2.30 | 1.70 | 1.90 |
| 15 | 2.00 | 1.75 | 3.45 | 3.30 | 1.60 | 3.60 | 2.60 | 2.20 | 1.80 | 2.20 | 1.60 | 1.90 |
| 16 | 2.10 | 1.70 | 2.50 | 2.80 | 1.60 | 2.50 | 2.20 | 2.00 | 1.75 | 2.20 | 1.60 | 1.90 |
| 17 | 1.90 | 1.65 | 2.20 | 2.60 | 1.60 | 2.20 | 2.70 | 2.00 | 1.70 | 2.15 | 1.75 | 3.00 |
| 18 | 2.30 | 1.65 | 2.10 | 2.40 | 1.55 | 2.00 | 3.35 | 2.40 | 4.20 | 3.00 | 5.00 | 2.60 |
| 19 | 2.00 | 1.65 | 2.50 | 2.30 | 1.55 | 2.00 | 2.70 | 2.10 | 4.60 | 2.40 | 10.00 | 2.30 |
| 20 | 2.00 | 1.60 | 2.70 | 2.20 | 1.50 | 1.90 | 2.40 | 2.00 | 3.10 | 2.35 | 4.20 | 2.30 |
| 21 | 2.00 | 2.00 | 2.40 | 2.20 | 1.50 | 1.80 | 2.50 | 2.10 | 2.70 | 2.20 | 3.40 | 2.30 |
| 22 | 4.30 | 1.80 | 2.30 | 2.10 | 1.55 | 1.80 | 2.70 | 2.00 | 2.60 | 2.10 | 2.90 | 2.20 |
| 23 | 5.00 | 1.70 | 2.15 | 2.00 | 1.50 | 1.75 | 2.50 | 2.00 | 2.80 | 2.00 | 2.80 | 2.20 |
| 24 | 3.40 | 1.70 | 2.20 | 2.00 | 1.45 | 2.60 | 2.50 | 2.30 | 2.50 | 2.00 | 2.50 | 2.00 |
| 25 | 3.00 | 1.65 | 2.10 | 1.95 | 1.40 | 2.20 | 2.20 | 2.00 | 2.40 | 1.90 | 2.40 | 2.05 |
| 26 | 3.10 | 1.60 | 2.00 | 1.90 | 1.50 | 1.90 | 2.10 | 2.00 | 2.25 | 1.90 | 2.25 | 2.00 |
| 27 | 2.75 | 1.85 | 2.40 | 1.90 | 2.00 | 1.90 | 2.00 | 2.10 | 2.30 | 1.85 | 2.20 | 2.00 |
| 28 | 2.60 | 1.60 | 2.20 | 1.90 | 2.40 | 1.80 | 2.00 | 2.30 | 2.40 | 1.80 | 2.10 | 2.90 |
| 29 | 2.50 | ------- | 2.50 | 1.90 | 1.90 | 1.80 | 2.10 | 2.70 | 4.40 | 1.80 | 2.00 | 2.60 |
| 30 | 2.40 | ------- | 4.20 | 1.85 | 1.70 | 1.70 | 2.10 | 3.60 | 6.20 | 1.80 | 2.00 | 2.55 |
| 31 | 2.30 | ------- | 3.00 | ------- | 1.60 | ------- | 2.00 | 2.80 | ------- | 1.80 | ------ | 4.00 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.80 | 2.60 | 2.90 | 1.70 | 1.80 | 2.90 | 1.70 | 1.35 | 1.20 | 1.60 | 1.20 | 1.65 |
| 2 | 2.60 | 2.20 | 3.20 | 1.60 | 1.75 | 2.30 | 1.85 | 1.30 | 1.15 | 1.50 | 2.30 | 1.60 |
| 3 | 2.40 | 2.10 | 2.40 | 1.60 | 2.40 | 2.10 | 1.90 | 1.30 | 1.25 | 1.50 | 1.70 | 1.50 |
| 4 | 2.30 | 2.25 | 2.10 | 1.60 | 2.50 | 1.90 | 1.70 | 1.30 | 1.30 | 1.45 | 1.40 | 1.50 |
| 5 | 2.25 | 2.90 | 2.00 | 2.10 | 2.10 | 1.80 | 1.60 | 1.30 | 1.30 | 1.85 | 1.35 | 1.40 |
| 6 | 2.20 | 2.40 | 2.00 | 2.00 | 2.30 | 1.75 | 1.60 | 1.35 | 1.20 | 1.50 | 1.35 | 1.50 |
| 7 | 2.10 | 2.20 | 2.50 | 1.90 | 2.80 | 1.70 | 1.50 | 1.30 | 1.20 | 1.40 | 1.30 | 1.50 |
| 8 | 2.10 | 2.10 | 2.30 | 1.80 | 2.40 | 3.00 | 1.50 | 1.45 | 1.60 | 1.50 | 1.30 | 1.45 |
| 9 | 2.00 | 2.00 | 2.10 | 1.80 | 2.30 | 2.10 | 1.45 | 1.30 | 1.35 | 1.40 | 1.25 | 2.65 |
| 10 | 2.00 | 2.00 | 3.00 | 1.70 | 2.20 | 2.00 | 1.40 | 1.80 | 1.25 | 1.35 | 2.30 | 2.80 |
| 11 | 1.95 | 1.90 | 2.40 | 1.65 | 2.60 | 1.90 | 1.45 | 1.40 | 1.65 | 1.30 | 1.85 | 2.10 |
| 12 | 1.95 | 1.85 | 2.20 | 1.70 | 2.30 | 1.80 | 2.45 | 1.45 | 1.40 | 1.30 | 1.60 | 1.80 |
| 13 | 1.90 | 1.85 | 2.10 | 1.60 | 2.10 | 1.80 | 1.90 | 1.45 | 1.25 | 1.30 | 1.50 | 1.75 |
| 14 | 1.90 | 1.80 | 2.20 | 1.60 | 2.10 | 1.90 | 1.60 | 1.35 | 1.20 | 1.30 | 1.50 | 2.65 |
| 15 | 1.85 | 1.70 | 2.20 | 1.60 | 2.20 | 1.80 | 1.80 | 1.50 | 1.20 | 1.25 | 1.40 | 2.25 |
| 16 | 1.80 | 1.70 | 2.00 | 1.80 | 2.00 | 1.70 | 1.70 | 1.65 | 1.20 | 1.25 | 1.40 | 2.05 |
| 17 | 1.90 | 1.70 | 2.00 | 1.75 | 1.90 | 1.65 | 2.45 | 1.50 | 1.20 | 1.25 | 1.40 | 1.90 |
| 18 | 1.80 | 1.70 | 1.95 | 1.70 | 1.90 | 1.60 | 1.90 | 1.55 | 1.20 | 1.20 | 1.70 | 1.90 |
| 19 | 1.80 | 1.70 | 1.90 | 2.45 | 1.80 | 1.70 | 1.65 | 1.40 | 1.20 | 1.20 | 1.75 | 1.80 |
| 20 | 2.10 | 1.70 | 1.85 | 1.90 | 1.80 | 1.60 | 1.60 | 1.30 | 1.10 | 1.20 | 1.60 | 1.70 |
| 21 | 1.80 | 1.70 | 1.80 | 1.80 | 1.75 | 1.55 | 1.55 | 1.50 | 1.10 | 1.20 | 2.45 | 1.70 |
| 22 | 1.80 | 1.65 | 1.75 | 2.00 | 1.70 | 1.70 | 1.50 | 1.50 | 1.50 | 1.20 | 2.00 | 1.65 |
| 23 | 1.75 | 1.65 | 1.70 | 2.65 | 1.90 | 2.00 | 1.40 | 1.40 | 4.20 | 1.20 | 3.25 | 3.85 |
| 24 | 1.75 | 1.80 | 1.70 | 2.10 | 1.90 | 1.80 | 1.40 | 1.50 | 2.05 | 1.20 | 3.45 | 3.55 |
| 25 | 1.70 | 1.85 | 1.70 | 2.00 | 1.80 | 1.90 | 1.45 | 1.40 | 1.70 | 1.20 | 2.55 | 2.35 |
| 26 | 1.80 | 2.10 | 1.80 | 1.90 | 2.10 | 1.80 | 1.40 | 1.40 | 1.50 | 1.20 | 2.20 | 2.10 |
| 27 | 1.70 | 2.00 | 1.70 | 2.20 | 1.90 | 1.65 | 1.40 | 1.30 | 1.45 | 1.45 | 2.00 | 2.00 |
| 28 | 1.70 | 2.90 | 1.65 | 2.00 | 1.80 | 3.20 | 1.50 | 1.30 | 1.40 | 1.35 | 1.90 | 1.90 |
| 29 | 1.70 | ------ | 1.65 | 1.90 | 1.70 | 2.20 | 1.60 | 1.25 | 2.40 | 1.20 | 1.80 | 1.90 |
| 30 | 1.65 | ------ | 1.60 | 1.90 | 1.70 | 1.80 | 1.50 | 1.20 | 1.80 | 1.20 | 1.70 | 4.30 |
| 31 | 1.70 | ------ | 1.80 | ------ | 2.20 | ------ | 1.40 | 1.20 | ------ | 1.20 | ------ | 2.90 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.55 | 2.30 | 2.40 | 2.20 | 2.45 | 1.90 | 1.40 | 1.30 | 1.45 | 1.15 |
| 2 | 2.30 | 1.95 | 2.45 | 2.20 | 2.30 | 1.80 | 1.40 | 1.30 | 1.40 | 1.10 |
| 3 | 2.20 | 1.85 | 2.50 | 2.20 | 2.20 | 1.80 | 1.75 | 1.30 | 1.40 | 1.10 |
| 4 | 2.25 | 1.90 | 2.45 | 2.15 | 2.10 | 2.10 | 1.85 | 1.30 | 1.40 | 1.10 |
| 5 | 3.00 | 1.90 | 2.45 | 2.10 | 2.05 | 1.90 | 2.25 | 1.45 | 1.95 | 1.10 |
| 6 | 2.45 | 2.10 | 2.40 | 2.10 | 2.10 | 1.80 | 2.20 | 2.50 | 2.00 | 1.10 |
| 7 | 2.30 | 1.90 | 2.50 | 2.00 | 3.15 | 1.80 | 2.00 | 1.80 | 1.60 | 1.00 |
| 8 | 2.20 | 1.90 | 2.50 | 2.00 | 2.45 | 1.70 | 2.15 | 1.65 | 1.50 | 1.00 |
| 9 | 2.10 | 1.85 | 2.40 | 1.95 | 2.30 | 1.70 | 2.20 | 1.70 | 1.40 | 1.20 |
| 10 | 2.00 | 1.90 | 2.30 | 1.90 | 2.20 | 1.70 | 2.20 | 1.60 | 1.40 | 1.90 |
| 11 | 2.50 | 2.00 | 2.20 | 1.90 | 2.10 | 2.00 | 1.95 | 1.50 | 1.35 | 1.35 |
| 12 | 4.60 | 2.45 | 3.10 | 1.80 | 2.05 | 1.75 | 1.80 | 1.40 | 1.30 | 1.20 |
| 13 | 3.25 | 2.80 | 2.50 | 1.80 | 2.00 | 1.70 | 1.70 | 1.30 | 1.30 | 1.20 |
| 14 | 2.95 | 3.15 | 2.40 | 1.80 | 2.00 | 1.80 | 1.70 | 1.30 | 1.30 | 1.15 |
| 15 | 2.55 | 6.60 | 2.30 | 2.50 | 2.00 | 1.95 | 1.60 | 1.40 | 1.30 | 1.15 |
| 16 | 2.50 | 3.85 | 2.20 | 2.50 | 1.95 | 1.80 | 1.65 | 1.40 | 1.25 | 1.10 |
| 17 | 2.40 | 3.20 | 2.10 | 2.30 | 2.10 | 1.70 | 1.60 | 1.45 | 1.25 | 1.10 |
| 18 | 2.30 | 2.85 | 2.10 | 2.20 | 2.20 | 1.60 | 1.50 | 1.50 | 1.25 | 1.10 |
| 19 | 2.20 | 2.95 | 2.00 | 2.25 | 2.95 | 1.60 | 1.85 | 1.40 | 1.20 | 1.10 |
| 20 | 2.10 | 2.60 | 2.65 | 2.10 | 2.35 | 1.60 | 1.50 | 1.40 | 1.20 | 1.10 |
| 21 | 2.10 | 2.55 | 3.20 | 2.00 | 2.20 | 1.60 | 1.40 | 1.30 | 1.20 | 1.10 |
| 22 | 2.10 | 2.35 | 2.75 | 1.90 | 2.10 | 1.60 | 1.45 | 2.55 | 1.20 | 1.10 |
| 23 | 2.00 | 2.35 | 3.70 | 1.90 | 2.00 | 1.60 | 1.45 | 1.85 | 1.20 | 1.85 |
| 24 | 1.90 | 2.20 | 4.60 | 1.90 | 2.20 | 1.60 | 1.50 | 2.00 | 1.20 | 1.60 |
| 25 | 1.90 | 2.25 | 3.40 | 4.90 | 2.05 | 1.85 | 1.40 | 2.95 | 1.15 | 1.40 |
| 26 | 1.90 | 2.35 | 3.95 | 3.40 | 2.15 | 1.60 | 1.40 | 2.20 | 1.15 | 1.25 |
| 27 | 2.10 | 2.20 | 2.75 | 2.90 | 2.10 | 1.50 | 1.40 | 1.85 | 1.10 | 1.10 |
| 28 | 1.90 | 2.00 | 2.60 | 2.65 | 2.05 | 1.50 | 1.50 | 1.70 | 1.25 | 1.45 |
| 29 | 1.90 | 2.10 | 2.45 | 2.45 | 2.45 | 1.40 | 1.50 | 1.60 | 1.20 | 2.30 |
| 30 | 1.80 | ..... | 3.30 | 2.50 | 2.25 | 1.40 | 1.40 | 1.55 | 1.15 | 1.90 |
| 31 | 1.80 | ..... | 2.30 | ..... | 1.95 | ..... | 1.40 | 1.50 | ..... | 1.60 |

RATING TABLE FOR TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1897 AND 1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 168 | 2.8 | 2,900 | 4.6 | 8,850 | 6.4 | 16,500 |
| 1.1 | 234 | 2.9 | 3,075 | 4.7 | 9,275 | 6.5 | 16,925 |
| 1.2 | 400 | 3.0 | 3,250 | 4.8 | 9,700 | 6.6 | 17,350 |
| 1.3 | 535 | 3.1 | 3,425 | 4.9 | 10,125 | 6.7 | 17,775 |
| 1.4 | 670 | 3.2 | 3,600 | 5.0 | 10,550 | 6.8 | 18,200 |
| 1.5 | 810 | 3.3 | 3,825 | 5.1 | 10,975 | 6.9 | 18,625 |
| 1.6 | 950 | 3.4 | 4,050 | 5.2 | 11,400 | 7.0 | 19,050 |
| 1.7 | 1,100 | 3.5 | 4,425 | 5.3 | 11,825 | 7.1 | 19,500 |
| 1.8 | 1,250 | 3.6 | 4,800 | 5.4 | 12,250 | 7.2 | 19,950 |
| 1.9 | 1,400 | 3.7 | 5,175 | 5.5 | 12,675 | 7.3 | 20,400 |
| 2.0 | 1,550 | 3.8 | 5,550 | 5.6 | 13,100 | 7.4 | 20,850 |
| 2.1 | 1,710 | 3.9 | 5,950 | 5.7 | 13,525 | 7.5 | 21,300 |
| 2.2 | 1,870 | 4.0 | 6,350 | 5.8 | 13,950 | 7.6 | 21,750 |
| 2.3 | 2,035 | 4.1 | 6,750 | 5.9 | 14,375 | 7.7 | 22,200 |
| 2.4 | 2,200 | 4.2 | 7,150 | 6.0 | 14,800 | 7.8 | 22,650 |
| 2.5 | 2,375 | 4.3 | 7,575 | 6.1 | 15,225 | 7.9 | 23,100 |
| 2.6 | 2,550 | 4.4 | 8,000 | 6.2 | 15,650 | 8.0 | 23,550 |
| 2.7 | 2,725 | 4.5 | 8,425 | 6.3 | 16,075 | | |

RATING TABLE FOR TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1899.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.0 | 300 | 2.6 | 2,330 | 4.2 | 7,150 | 7.0 | 19,050 |
| 1.2 | 460 | 2.8 | 2,720 | 4.4 | 8,000 | 7.5 | 21,300 |
| 1.4 | 620 | 3.0 | 3,150 | 4.6 | 8,850 | 8.0 | 23,550 |
| 1.6 | 824 | 3.2 | 3,620 | 4.8 | 9,700 | 8.5 | 26,050 |
| 1.8 | 1,072 | 3.4 | 4,160 | 5.0 | 10,550 | 9.0 | 28,550 |
| 2.0 | 1,320 | 3.6 | 4,800 | 5.5 | 12,675 | 9.5 | 31,050 |
| 2.2 | 1,652 | 3.8 | 5,530 | 6.0 | 14,800 | 10.0 | 33,550 |
| 2.4 | 1,984 | 4.0 | 6,320 | 6.5 | 16,925 | 11.0 | 38,550 |

RATING TABLE FOR TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1900.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 300 | 2.6 | 2,540 | 4.2 | 6,400 | 7.0 | 19,175 |
| 1.2 | 500 | 2.8 | 2,900 | 4.4 | 7,050 | 7.5 | 22,050 |
| 1.4 | 700 | 3.0 | 3,260 | 4.6 | 7,700 | 8.0 | 24,925 |
| 1.6 | 950 | 3.2 | 3,650 | 4.8 | 8,350 | 8.5 | 27,800 |
| 1.8 | 1,200 | 3.4 | 4,075 | 5.0 | 9,000 | 9.0 | 30,675 |
| 2.0 | 1,510 | 3.6 | 4,550 | 5.5 | 10,950 | 9.5 | 33,550 |
| 2.2 | 1,850 | 3.8 | 5,125 | 6.0 | 13,450 | 10.0 | 36,425 |
| 2.4 | 2,190 | 4.0 | 5,750 | 6.5 | 16,300 | 11.0 | 42,300 |

RATING TABLE FOR TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 400 | 3.2 | 4,110 | 5.4 | 10,250 | 7.6 | 22,480 |
| 1.2 | 600 | 3.4 | 4,565 | 5.6 | 11,125 | 7.8 | 23,640 |
| 1.4 | 830 | 3.6 | 5,035 | 5.8 | 12,100 | 8.0 | 24,800 |
| 1.6 | 1,080 | 3.8 | 5,515 | 6.0 | 13,200 | 8.5 | 27,700 |
| 1.8 | 1,370 | 4.0 | 6,000 | 6.2 | 14,360 | 9.0 | 30,600 |
| 2.0 | 1,700 | 4.2 | 6,510 | 6.4 | 15,520 | 9.5 | 33,500 |
| 2.2 | 2,065 | 4.4 | 7,060 | 6.6 | 16,680 | 10.0 | 36,400 |
| 2.4 | 2,450 | 4.6 | 7,640 | 6.8 | 17,840 | 10.5 | 39,300 |
| 2.6 | 2,850 | 4.8 | 8,220 | 7.0 | 19,000 | 11.0 | 42,200 |
| 2.8 | 3,260 | 5.0 | 8,800 | 7.2 | 20,160 | | |
| 3.0 | 3,675 | 5.2 | 9,475 | 7.4 | 21,320 | | |

RATING TABLE FOR TUCKASEEGEE RIVER AT BRYSON, N. C., FOR 1902.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 400 | 3.2 | 4,110 | 5.4 | 10,250 | 7.6 | 22,480 |
| 1.2 | 600 | 3.4 | 4,565 | 5.6 | 11,125 | 7.8 | 23,640 |
| 1.4 | 830 | 3.6 | 5,035 | 5.8 | 12,100 | 8.0 | 24,800 |
| 1.6 | 1,080 | 3.8 | 5,515 | 6.0 | 13,200 | 8.5 | 27,700 |
| 1.8 | 1,370 | 4.0 | 6,000 | 6.2 | 14,360 | 9.0 | 30,600 |
| 2.0 | 1,700 | 4.2 | 6,510 | 6.4 | 15,520 | 9.5 | 33,500 |
| 2.2 | 2,065 | 4.4 | 7,060 | 6.6 | 16,680 | 10.0 | 36,400 |
| 2.4 | 2,450 | 4.6 | 7,640 | 6.8 | 17,840 | 10.5 | 39,300 |
| 2.6 | 2,850 | 4.8 | 8,220 | 7.0 | 19,000 | 11.0 | 42,200 |
| 2.8 | 3,260 | 5.0 | 8,800 | 7.2 | 20,160 | | |
| 3.0 | 3,675 | 5.2 | 9,475 | 7.4 | 21,320 | | |

Rating Table for Tuckaseegee River at Bryson, N. C., for 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.9 | 380 | 2.7 | 2,850 | 4.5 | 7,220 | 6.3 | 14,940 |
| 1.0 | 460 | 2.8 | 3,050 | 4.6 | 7,530 | 6.4 | 15,520 |
| 1.1 | 550 | 2.9 | 3,250 | 4.7 | 7,840 | 6.5 | 16,100 |
| 1.2 | 640 | 3.0 | 3,460 | 4.8 | 8,160 | 6.6 | 16,680 |
| 1.3 | 730 | 3.1 | 3,670 | 4.9 | 8,480 | 6.7 | 17,260 |
| 1.4 | 830 | 3.2 | 3,890 | 5.0 | 8,800 | 6.8 | 17,840 |
| 1.5 | 940 | 3.3 | 4,110 | 5.1 | 9,125 | 6.9 | 18,420 |
| 1.6 | 1,060 | 3.4 | 4,330 | 5.2 | 9,475 | 7.0 | 19,000 |
| 1.7 | 1,180 | 3.5 | 4,560 | 5.3 | 9,850 | 7.2 | 20,160 |
| 1.8 | 1,310 | 3.6 | 4,800 | 5.4 | 10,250 | 7.4 | 21,320 |
| 1.9 | 1,450 | 3.7 | 5,040 | 5.5 | 10,675 | 7.6 | 22,480 |
| 2.0 | 1,600 | 3.8 | 5,290 | 5.6 | 11,125 | 7.8 | 23,640 |
| 2.1 | 1,760 | 3.9 | 5,540 | 5.7 | 11,600 | 8.0 | 24,800 |
| 2.2 | 1,930 | 4.0 | 5,800 | 5.8 | 12,100 | 8.2 | 25,960 |
| 2.3 | 2,100 | 4.1 | 6,070 | 5.9 | 12,625 | 8.4 | 27,120 |
| 2.4 | 2,280 | 4.2 | 6,350 | 6.0 | 13,200 | 8.6 | 28,280 |
| 2.5 | 2,470 | 4.3 | 6,630 | 6.1 | 13,780 | 8.8 | 29,440 |
| 2.6 | 2,660 | 4.4 | 6,920 | 6.2 | 14,360 | 9.0 | 30,600 |

Table well determined to 3-foot gage height. Above 5 feet, 1901, 1902, and 1903 rating tables are the same.

Rating Table for Tuckaseegee River at Bryson, N. C., for 1904–1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.90 | 380 | 2.00 | 1,660 | 3.10 | 3,670 | 4.40 | 6,920 |
| 1.00 | 460 | 2.10 | 1,810 | 3.20 | 3,890 | 4.60 | 7,530 |
| 1.10 | 550 | 2.20 | 1,970 | 3.30 | 4,110 | 4.80 | 8,160 |
| 1.20 | 650 | 2.30 | 2,130 | 3.40 | 4,330 | 5.00 | 8,800 |
| 1.30 | 750 | 2.40 | 2,300 | 3.50 | 4,560 | 5.20 | 9,475 |
| 1.40 | 860 | 2.50 | 2,480 | 3.60 | 4,800 | 5.40 | 10,250 |
| 1.50 | 980 | 2.60 | 2,660 | 3.70 | 5,040 | 5.60 | 11,125 |
| 1.60 | 1,100 | 2.70 | 2,850 | 3.80 | 5,290 | 5.80 | 12,100 |
| 1.70 | 1,230 | 2.80 | 3,050 | 3.90 | 5,540 | 6.00 | 13,200 |
| 1.80 | 1,370 | 2.90 | 3,250 | 4.00 | 5,800 | 6.20 | 14,360 |
| 1.90 | 1,510 | 3.00 | 3,460 | 4.20 | 6,350 | 6.40 | 15,520 |

Note.—The above table is based on discharge measurements made during 1904 to 1907. It is well defined to gage height 3 feet. Above gage height 6 feet the rating curve is a tangent the difference being 580 per tenth.

ESTIMATED MONTHLY DISCHARGE OF TUCKASEEGEE RIVER AT BRYSON, N. C.

[Drainage area, 662 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1898. | | | | | | |
| January | 8,425 | 400 | 1,910 | 117,442 | 2.88 | 3.32 |
| February | 1,325 | 602 | 893 | 49,595 | 1.35 | 1.41 |
| March | 17,775 | 535 | 1,939 | 119,225 | 2.93 | 3.38 |
| April | 3,425 | 1,475 | 2,107 | 125,375 | 3.18 | 3.55 |
| May | 1,550 | 810 | 1,155 | 71,019 | 1.74 | 2.01 |
| June | 1,400 | 467 | 672 | 39,987 | 1.01 | 1.13 |
| July | 2,200 | 535 | 1,149 | 70,650 | 1.74 | 2.01 |
| August | 22,650 | 1,175 | 3,373 | 207,399 | 5.09 | 5.87 |
| September | 26,050 | 1,100 | 3,876 | 230,638 | 5.86 | 6.72 |
| October | 21,750 | 1,100 | 3,826 | 235,253 | 5.78 | 6.66 |
| November | 2,375 | 1,250 | 1,763 | 104,906 | 2.66 | 2.97 |
| December | 3,075 | 950 | 1,838 | 113,015 | 2.78 | 3.21 |
| The year | 26,050 | 400 | 2,042 | 1,484,504 | 3.08 | 42.24 |
| 1899. | | | | | | |
| January, 29 days | 3,150 | 1,072 | 1,733 | 106,558 | 2.62 | 3.02 |
| February, 27 days | 28,550 | 1,134 | 5,853 | 325,059 | 8.84 | 9.21 |
| March | 38,550 | 1,735 | 7,617 | 468,351 | 11.51 | 13.27 |
| April | 4,800 | 1,984 | 2,972 | 176,846 | 4.49 | 5.01 |
| May | 3,150 | 1,072 | 1,815 | 111,600 | 2.74 | 3.16 |
| June | 4,470 | 700 | 1,207 | 71,821 | 1.82 | 2.03 |
| July | 1,320 | 540 | 740 | 45,501 | 1.12 | 1.29 |
| August | 700 | 460 | 557 | 34,249 | .84 | .97 |
| September | 620 | 300 | 427 | 25,408 | .65 | .72 |
| October | 1,320 | 300 | 437 | 26,870 | .66 | .76 |
| November | 1,072 | 300 | 450 | 26,777 | .68 | .75 |
| December | 16,925 | 540 | 1,354 | 83,254 | 2.05 | 2.36 |
| The year | 38,550 | 300 | 2,097 | 1,502,294 | 3.17 | 42.55 |
| 1900. | | | | | | |
| January | 3,450 | 825 | 2,037 | 125,250 | 3.08 | 3.55 |
| February | 24,925 | 950 | 4,197 | 233,090 | 6.34 | 6.60 |
| March | 16,012 | 1,850 | 3,577 | 219,941 | 5.40 | 6.22 |
| April | 5,425 | 1,680 | 2,429 | 144,536 | 3.67 | 4.10 |
| May | 2,020 | 700 | 1,288 | 79,196 | 1.95 | 2.25 |
| June | 6,725 | 825 | 2,425 | 144,297 | 3.66 | 4.09 |
| July | 2,360 | 950 | 1,565 | 96,228 | 2.36 | 2.73 |
| August | 1,350 | 550 | 764 | 46,976 | 1.15 | 1.33 |
| September | 3,080 | 450 | 760 | 45,223 | 1.15 | 1.28 |
| October | 9,700 | 400 | 898 | 55,216 | 1.36 | 1.57 |
| November | 8,350 | 450 | 1,097 | 65,276 | 1.66 | 1.85 |
| December | 3,850 | 700 | 1,257 | 77,290 | 1.90 | 2.19 |
| The year | 24,925 | 400 | 1,858 | 1,332,519 | 2.81 | 37.76 |

ESTIMATED MONTHLY DISCHARGE OF TUCKASEEGEE RIVER AT BRYSON, N. C.—*Continued.*

[Drainage area, 662 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1901. | | | | | |
| January | 19,580 | 1,015 | 2,432 | 3.67 | 4.23 |
| February | 3,675 | 950 | 1,538 | 2.32 | 2.41 |
| March | 17,550 | 950 | 2,862 | 4.32 | 4.98 |
| April | 11,125 | 2,255 | 3,828 | 5.78 | 6.45 |
| May | 26,250 | 1,370 | 3,536 | 5.34 | 6.15 |
| June | 3,675 | 1,700 | 2,255 | 3.41 | 3.81 |
| July | 2,850 | 830 | 1,250 | 1.89 | 2.18 |
| August | 19,000 | 710 | 4,653 | 7.03 | 8.10 |
| September | 5,515 | 1,295 | 2,003 | 3.02 | 3.37 |
| October | 2,650 | 830 | 1,034 | 1.56 | 1.80 |
| November | 950 | 600 | 707 | 1.07 | 1.19 |
| December | 35,820 | 600 | 4,285 | 6.47 | 7.46 |
| The year | 35,820 | 600 | 2,532 | 3.82 | 52.13 |
| 1902. | | | | | |
| January | 5,515 | 1,150 | 2,173 | 3.28 | 3.78 |
| February | 35,820 | 830 | 3,547 | 5.36 | 5.58 |
| March | 14,650 | 2,255 | 4,467 | 6.75 | 7.78 |
| April | 3,890 | 1,530 | 2,341 | 3.54 | 3.95 |
| May | 2,065 | 1,080 | 1,395 | 2.11 | 2.43 |
| June | 1,530 | 710 | 962 | 1.45 | 1.62 |
| July | 1,295 | 500 | 738 | 1.11 | 1.28 |
| August | 830 | 300 | 469 | .71 | .82 |
| September | 6,000 | 350 | 1,004 | 1.52 | 1.70 |
| October | 1,295 | 500 | 636 | .96 | 1.11 |
| November | 4,682 | 500 | 929 | 1.40 | 1.56 |
| December | 6,000 | 950 | 1,723 | 2.60 | 3.00 |
| The year | 35,820 | 300 | 1,699 | 2.57 | 34.61 |
| 1903. | | | | | |
| January | 2,470 | 940 | 1,258 | 1.90 | 2.19 |
| February | 23,640 | 1,060 | 4,502 | 6.80 | 7.08 |
| March | 25,960 | 2,280 | 5,102 | 7.71 | 8.89 |
| April | 16,100 | 2,100 | 4,123 | 6.23 | 6.95 |
| May | 2,015 | 1,060 | 1,467 | 2.22 | 2.56 |
| June | 4,110 | 940 | 1,683 | 2.54 | 2.83 |
| July | 1,525 | 685 | 952 | 1.44 | 1.66 |
| August | 1,180 | 550 | 725 | 1.10 | 1.27 |
| September | 940 | 420 | 531 | .80 | .89 |
| October | 1,060 | 380 | 467 | .71 | .82 |
| November | 5,800 | 380 | 704 | 1.06 | 1.18 |
| December | 1,310 | 380 | 539 | .81 | .93 |
| The year | 25,960 | 380 | 1,838 | 2.78 | 37.25 |

ESTIMATED MONTHLY DISCHARGE OF TUCKASEEGEE RIVER AT BRYSON, N. C.—*Continued.*

[Drainage area, 662 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| January | 10,250 | 380 | 1,026 | 1.55 | 1.79 |
| February | 3,050 | 550 | 1,103 | 1.67 | 1.80 |
| March | 8,160 | 860 | 2,061 | 3.11 | 3.58 |
| April | 2,660 | 980 | 1,378 | 2.08 | 2.32 |
| May | 5,540 | 750 | 1,286 | 1.94 | 2.24 |
| June | 1,660 | 700 | 942 | 1.42 | 1.58 |
| July | 1,100 | 550 | 743 | 1.12 | 1.29 |
| August | 1,660 | 650 | 921 | 1.39 | 1.60 |
| September | 980 | 420 | 586 | .885 | .986 |
| October | 460 | 340 | 383 | .579 | .668 |
| November | 980 | 340 | 457 | .690 | .770 |
| December | 3,050 | 420 | 805 | 1.22 | 1.41 |
| The year | 10,250 | 340 | 974 | 1.47 | 20.03 |
| 1905. | | | | | |
| January | 14,250 | 650 | 1,542 | 2.33 | 2.69 |
| February | 5,800 | 650 | 2,348 | 3.55 | 3.70 |
| March | 5,290 | 1,230 | 1,880 | 2.84 | 3.27 |
| April | 2,130 | 980 | 1,312 | 1.98 | 2.21 |
| May | 3,670 | 1,230 | 1,680 | 2.54 | 2.93 |
| June | 1,970 | 860 | 1,149 | 1.74 | 1.94 |
| July | 9,475 | 920 | 1,849 | 2.79 | 3.22 |
| August | 4,110 | 920 | 1,527 | 2.31 | 2.66 |
| September | 1,230 | 550 | 731 | 1.10 | 1.23 |
| October | 2,755 | 550 | 720 | 1.09 | 1.26 |
| November | 750 | 505 | 563 | .85 | .948 |
| December | 9,475 | 550 | 1,828 | 2.76 | 3.18 |
| The year | 14,250 | 505 | 1,427 | 2.16 | 29.24 |
| 1906. | | | | | |
| January | 10,700 | 1,100 | 2,870 | 4.34 | 5.00 |
| February | 1,970 | 1,100 | 1,390 | 2.10 | 2.19 |
| March | 6,350 | 1,100 | 2,190 | 3.31 | 3.82 |
| April | 5,160 | 1,440 | 2,170 | 3.28 | 3.66 |
| May | 2,300 | 860 | 1,300 | 1.96 | 2.26 |
| June | 5,040 | 980 | 1,750 | 2.64 | 2.94 |
| July | 4,220 | 1,100 | 1,930 | 2.92 | 3.37 |
| August | 4,800 | 1,100 | 1,900 | 2.87 | 3.31 |
| September | 14,400 | 1,230 | 3,070 | 4.64 | 5.18 |
| October | 8,160 | 1,370 | 2,960 | 4.47 | 5.15 |
| November | 36,400 | 1,100 | 3,230 | 4.88 | 5.44 |
| December | 5,800 | 1,370 | 2,040 | 3.08 | 3.55 |
| The year | 36,400 | 860 | 2,230 | 3.37 | 45.87 |

NOTE.—Values for 1906 are excellent.

ESTIMATED MONTHLY DISCHARGE OF TUCKASEEGEE RIVER AT BRYSON, N. C.—*Continued.*

[Drainage area, 662 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1907. | | | | | |
| January | 3,050 | 1,160 | 1,620 | 2.45 | 2.82 |
| February | 3,250 | 1,160 | 1,690 | 2.55 | 2.66 |
| March | 3,890 | 1,100 | 1,810 | 2.73 | 3.15 |
| April | 2,760 | 1,100 | 1,480 | 2.24 | 2.50 |
| May | 3,050 | 1,230 | 1,760 | 2.66 | 3.07 |
| June | 3,890 | 1,040 | 1,640 | 2.48 | 2.77 |
| July | 2,390 | 860 | 1,170 | 1.77 | 2.04 |
| August | 1,370 | 650 | 861 | 1.30 | 1.50 |
| September | 6,350 | 550 | 1,060 | 1.60 | 1.78 |
| October | 1,440 | 650 | 791 | 1.19 | 1.37 |
| November | 4,440 | 650 | 1,480 | 2.24 | 2.50 |
| December | 6,630 | 860 | 1,980 | 2.99 | 3.45 |
| The year | 6,630 | 550 | 1,450 | 2.18 | 29.61 |

TUCKASEEGEE RIVER NEAR EAST LAPORT, N. C.

The station at this place was established on May 27, 1907.

It is located at the steel wagon bridge about 2 miles from East Laport, and 10 miles from Dillsboro, N. C.

The vertical gage is located on the left bank, about 75 feet below the bridge; fastened to a special post, or scantling driven in the bed of the stream and spiked to a tree.

Discharge measurements are made from the bridge, which is a single span supported on tubular piers.

The current is good, and the bed is partly rock and should be fairly constant. The left bank is above high water, and the right will not overflow except at very high stage.

The bench mark is the top of the downstream end of the third floor beam from the left end of the bridge; elevation, 21.25 feet.

DISCHARGE MEASUREMENTS OF TUCKASEEGEE RIVER NEAR EAST LAPORT, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| May 27 | F. A. Murray | 113 | 228 | 2.01 | 2.00 | 459 |
| Aug. 26 | Frank P. Thomas | 107 | 172 | 1.27 | 1.20 | 220 |
| Aug. 26 | ----do | 107 | 172 | 1.42 | 1.20 | 244 |
| Oct. 21 | Olin P. Hall | 98 | 153 | 1.29 | 1.15 | 197 |

DAILY GAGE HEIGHT, IN FEET, OF TUCKASEEGEE RIVER NEAR EAST LAPORT, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.20 | 1.80 | 1.40 | 1.40 | 1.50 | 1.20 | 1.60 |
| 2 | | 2.40 | 1.70 | 1.30 | 1.30 | 1.50 | 2.10 | 1.50 |
| 3 | | 2.20 | 2.00 | 1.30 | 1.30 | 1.50 | 1.50 | 1.40 |
| 4 | | 2.10 | 1.80 | 1.30 | 1.20 | 1.50 | 1.20 | 1.30 |
| 5 | | 2.00 | 1.70 | 1.30 | 1.20 | 1.50 | 1.20 | 1.20 |
| 6 | | 1.90 | 1.70 | 1.30 | 1.10 | 1.40 | 1.20 | 1.20 |
| 7 | | 1.90 | 1.60 | 1.30 | 1.10 | 1.40 | 1.20 | 1.20 |
| 8 | | 2.80 | 1.50 | 1.40 | 1.30 | 1.30 | 1.10 | 1.20 |
| 9 | | 2.10 | 1.50 | 1.40 | 1.20 | 1.30 | 1.10 | 1.40 |
| 10 | | 2.00 | 1.50 | 1.40 | 1.10 | 1.30 | 1.50 | 3.90 |
| 11 | | 1.80 | 1.60 | 1.40 | 1.10 | 1.30 | 1.40 | 2.50 |
| 12 | | 1.80 | 2.00 | 1.40 | 1.10 | 1.30 | 1.40 | 2.00 |
| 13 | | 1.80 | 1.80 | 1.40 | 1.10 | 1.20 | 1.30 | 2.00 |
| 14 | | 1.90 | 1.60 | 1.40 | 1.10 | 1.20 | 1.30 | 4.00 |
| 15 | | 1.80 | 1.60 | 1.40 | 1.10 | 1.20 | 1.30 | 3.00 |
| 16 | | 1.70 | 1.70 | 1.50 | 1.10 | 1.20 | 1.30 | 2.50 |
| 17 | | 1.60 | 1.70 | 1.50 | 1.10 | 1.20 | 1.30 | 2.40 |
| 18 | | 1.60 | 1.60 | 1.60 | 1.10 | 1.20 | 1.60 | 2.30 |
| 19 | | 1.90 | 1.50 | 1.50 | 1.10 | 1.20 | 1.50 | 2.00 |
| 20 | | 1.70 | 1.50 | 1.40 | 1.00 | 1.20 | 1.50 | 2.00 |
| 21 | | 1.70 | 1.60 | 1.30 | 1.10 | 1.20 | 3.50 | 1.80 |
| 22 | | 1.80 | 1.60 | 1.30 | 1.10 | 1.20 | 2.20 | 1.70 |
| 23 | | 1.90 | 1.50 | 1.30 | 5.00 | 1.20 | 3.40 | 5.00 |
| 24 | | 2.00 | 1.40 | 1.30 | 3.00 | 1.20 | 3.50 | 4.00 |
| 25 | | 2.10 | 1.50 | 1.20 | 2.00 | 1.20 | 2.20 | 3.00 |
| 26 | | 1.90 | 1.50 | 1.20 | 1.40 | 1.20 | 2.00 | 2.50 |
| 27 | 2.00 | 1.80 | 1.40 | 1.20 | 1.40 | 1.20 | 2.00 | 2.40 |
| 28 | 1.90 | 2.00 | 1.40 | 1.20 | 1.30 | 1.20 | 1.90 | 2.20 |
| 29 | 1.80 | 2.00 | 1.40 | 1.20 | 1.30 | 1.20 | 1.90 | 2.00 |
| 30 | 1.80 | 1.80 | 1.70 | 1.20 | 1.30 | 1.20 | 1.70 | 4.00 |
| 31 | 2.00 | | 1.40 | 1.20 | | 1.20 | | 3.00 |

Daily Gage Height, in Feet, of Tuckaseegee River near East Laport, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.60 | 3.00 | 2.00 | 2.40 | 2.50 | 2.00 | 1.50 | 1.60 | 1.60 | 1.20 |
| 2 | 2.50 | 2.70 | 2.00 | 2.30 | 2.50 | 2.00 | 1.50 | 1.50 | 1.60 | 1.20 |
| 3 | 2.20 | 2.60 | 2.00 | 2.30 | 2.40 | 2.00 | 1.70 | 1.50 | 1.50 | 1.20 |
| 4 | 2.10 | 2.30 | 2.10 | 2.20 | 2.30 | 2.00 | 1.70 | 1.50 | 1.50 | 1.20 |
| 5 | 2.90 | 2.20 | 2.20 | 2.20 | 2.30 | 1.90 | 2.60 | 1.60 | 1.50 | 1.20 |
| 6 | 2.70 | 2.40 | 2.40 | 2.20 | 2.30 | 1.90 | 2.20 | 1.90 | 1.90 | 1.10 |
| 7 | 2.60 | 2.30 | 2.30 | 2.20 | 4.50 | 1.80 | 2.50 | 1.80 | 1.80 | 1.10 |
| 8 | 2.40 | 2.20 | 2.30 | 2.20 | 3.00 | 1.80 | 2.60 | 1.70 | 1.80 | 1.10 |
| 9 | 2.20 | 2.20 | 2.30 | 2.20 | 2.90 | 1.80 | 2.60 | 1.60 | 1.70 | 1.20 |
| 10 | 2.10 | 2.20 | 2.20 | 2.10 | 2.60 | 2.40 | 2.50 | 1.50 | 1.60 | 2.50 |
| 11 | 7.00 | 2.30 | 2.20 | 2.10 | 2.40 | 2.10 | 2.40 | 1.50 | 1.50 | 2.50 |
| 12 | 5.50 | 3.00 | 3.00 | 2.10 | 2.30 | 2.00 | 2.10 | 1.40 | 1.50 | 1.30 |
| 13 | 4.00 | 3.40 | 2.50 | 2.00 | 2.20 | 2.00 | 1.90 | 1.40 | 1.50 | 1.30 |
| 14 | 3.40 | 3.60 | 2.50 | 2.00 | 2.20 | 2.10 | 1.80 | 1.40 | 1.40 | 1.30 |
| 15 | 3.00 | 9.60 | 2.40 | 4.00 | 2.10 | 2.30 | 1.70 | 1.50 | 1.40 | 1.30 |
| 16 | 2.90 | 4.00 | 2.40 | 3.00 | 2.10 | 1.90 | 2.00 | 1.50 | 1.40 | 1.20 |
| 17 | 2.80 | 3.20 | 2.30 | 2.80 | 2.20 | 1.80 | 1.90 | 1.50 | 1.40 | 1.20 |
| 18 | 2.60 | 3.00 | 2.30 | 2.50 | 2.20 | 1.80 | 1.80 | 1.40 | 1.30 | 1.20 |
| 19 | 2.60 | 3.00 | 2.20 | 2.40 | 2.10 | 1.70 | 1.70 | 1.40 | 1.30 | 1.10 |
| 20 | 2.50 | 2.80 | 2.20 | 2.30 | 2.10 | 1.90 | 1.60 | 1.90 | 1.30 | 1.10 |
| 21 | 2.40 | 2.70 | 3.00 | 2.20 | 2.10 | 1.80 | 1.60 | 2.00 | 1.30 | 1.10 |
| 22 | 2.30 | 2.60 | 2.90 | 2.10 | 2.00 | 1.70 | 1.50 | 3.40 | 1.30 | 1.10 |
| 23 | 2.30 | 2.60 | 2.70 | 2.10 | 2.00 | 1.70 | 1.50 | 2.70 | 1.30 | 2.60 |
| 24 | 2.20 | 2.50 | 4.20 | 2.00 | 2.10 | 1.70 | 1.50 | 2.30 | 1.20 | 2.00 |
| 25 | 2.10 | 2.40 | 3.50 | 6.40 | 2.00 | 1.70 | 1.40 | 3.70 | 1.20 | 1.50 |
| 26 | 2.20 | 2.20 | 3.00 | 4.00 | 2.00 | 1.70 | 1.30 | 2.60 | 1.20 | 1.40 |
| 27 | 2.20 | 2.00 | 3.00 | 3.00 | 2.40 | 1.60 | 1.50 | 2.50 | 1.30 | 1.40 |
| 28 | 2.20 | 2.50 | 2.90 | 2.70 | 2.50 | 1.60 | 1.60 | 2.40 | 1.30 | 2.20 |
| 29 | 2.10 | 2.00 | 2.60 | 2.60 | 2.60 | 1.60 | 1.70 | 2.10 | 1.20 | 2.90 |
| 30 | 2.10 | ------ | 2.50 | 2.50 | 2.40 | 1.50 | 1.70 | 1.90 | 1.20 | 2.00 |
| 31 | 2.10 | ------ | 2.50 | ------ | 2.10 | ------ | 1.60 | 1.60 | ------ | 2.80 |

Rating Table for Tuckaseegee River near East Laport, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 160 | 1.35 | 250 | 1.70 | 355 | 2.05 | 490 |
| 1.05 | 170 | 1.40 | 265 | 1.75 | 372 | 2.10 | 510 |
| 1.10 | 180 | 1.45 | 280 | 1.80 | 390 | 2.15 | 535 |
| 1.15 | 192 | 1.50 | 295 | 1.85 | 410 | 2.20 | 560 |
| 1.20 | 205 | 1.55 | 310 | 1.90 | 430 | 2.25 | 585 |
| 1.25 | 220 | 1.60 | 325 | 1.95 | 450 | 2.30 | 610 |
| 1.30 | 235 | 1.65 | 340 | 2.00 | 470 | | |

### OCONALUFTY RIVER NEAR CHEROKEE, N. C.

This station was established on August 27, 1907. It is located about 500 feet below the mouth of Soco Creek, a large tributary of Oconalufty River.

The gage is a vertical rod attached to a tree on the left bank of river.

Discharge measurements are made from a boat at ordinary times, but can also be made in two parts by measuring Soco Creek, and the river above the junction, both measurements being made from bridges.

The station is 1½ miles from Cherokee Post-office, and about 5 miles from Whittier, the nearest railroad point.

DISCHARGE MEASUREMENTS OF OCONALUFTY RIVER NEAR CHEROKEE, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| Aug. 27 | F. A. Murray | 100 | 250 | 0.95 | 1.81 | 237 |
| Oct. 19 | Olin P. Hall | 98 | 230 | 1.01 | 1.67 | 232 |

DAILY GAGE HEIGHT, IN FEET, OF OCONALUFTY RIVER NEAR CHEROKEE, N. C., FOR 1907.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 1.70 | 2.70 | 2.80 | 2.10 | 17 | | 1.75 | 1.70 | 2.60 | 2.20 |
| 2 | | 1.70 | 2.60 | 2.50 | 2.10 | 18 | | 1.80 | 1.65 | 2.90 | 2.20 |
| 3 | | 1.70 | 2.50 | 2.40 | 2.00 | 19 | | 1.75 | 1.65 | 2.60 | 2.00 |
| 4 | | 1.70 | 1.90 | 2.45 | 2.00 | 20 | | 1.60 | 1.65 | 2.10 | 1.95 |
| 5 | | 1.65 | 2.00 | 2.40 | 1.95 | 21 | | 1.60 | 1.60 | 2.75 | 3.20 |
| 6 | | 1.60 | 2.00 | 2.35 | 1.90 | 22 | | 2.40 | 1.60 | 2.50 | 3.00 |
| 7 | | 1.60 | 2.10 | 2.30 | 1.90 | 23 | | 3.60 | 1.60 | 5.30 | 3.30 |
| 8 | | 1.95 | 2.00 | 2.25 | 1.90 | 24 | | 3.00 | 1.60 | 4.00 | 2.10 |
| 9 | | 1.85 | 1.90 | 2.20 | 1.85 | 25 | | 2.80 | 1.55 | 3.40 | 2.10 |
| 10 | | 1.75 | 1.85 | 3.20 | 3.00 | 26 | | 2.75 | 1.55 | 3.10 | 2.10 |
| 11 | | 2.40 | 1.80 | 2.20 | 2.75 | 27 | 1.80 | 2.00 | 1.70 | 2.85 | 2.10 |
| 12 | | 1.85 | 1.80 | 2.15 | 2.35 | 28 | 1.95 | 3.00 | 1.70 | 2.70 | 2.10 |
| 13 | | 1.80 | 1.80 | 2.10 | 2.50 | 29 | 1.80 | 2.80 | 1.65 | 2.50 | 2.80 |
| 14 | | 1.80 | 1.75 | 2.80 | 2.40 | 30 | 1.75 | 2.75 | 1.65 | 2.10 | 5.00 |
| 15 | | 1.80 | 1.70 | 2.75 | 2.40 | 31 | 1.70 | | 1.60 | | 3.10 |
| 16 | | 1.80 | 1.70 | 2.65 | 2.30 | | | | | | |

Daily Gage Height, in Feet, of Oconalufty River near Cherokee, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | Day. | Jan. | Feb. | Mar. | Apr. | May. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 2.20 | 2.40 | 2.10 | 2.30 | 17 | 2.20 | 3.10 | 2.10 | 2.10 | 3.00 |
| 2 | 3.40 | 2.30 | 3.00 | 2.15 | 2.20 | 18 | 2.20 | 3.00 | 2.15 | 2.10 | 2.10 |
| 3 | 2.80 | 2.30 | 2.40 | 2.10 | 2.10 | 19 | 2.10 | 2.30 | 2.10 | 2.15 | 4.00 |
| 4 | 2.80 | 2.30 | 2.30 | 2.10 | 2.10 | 20 | 2.10 | 2.20 | 4.20 | 2.10 | 3.00 |
| 5 | 3.00 | 2.20 | 2.10 | 2.15 | 2.15 | 21 | 2.15 | 2.15 | 3.10 | 2.15 | 2.10 |
| 6 | 2.80 | 2.10 | 3.00 | 2.10 | 2.10 | 22 | 2.20 | 2.10 | 3.15 | 2.20 | 2.15 |
| 7 | 2.10 | 2.20 | 3.00 | 2.20 | 3.50 | 23 | 2.20 | 2.10 | 4.70 | 2.30 | 2.10 |
| 8 | 2.15 | 2.10 | 2.40 | 2.15 | 2.10 | 24 | 2.20 | 2.15 | 3.00 | 2.10 | 2.15 |
| 9 | 2.15 | 2.10 | 2.10 | 2.10 | 2.15 | 25 | 2.15 | 2.10 | 3.10 | 7.00 | 2.20 |
| 10 | 2.15 | 2.20 | 2.10 | 2.20 | 2.10 | 26 | 2.15 | 2.15 | 3.15 | 3.10 | 2.10 |
| 11 | 3.10 | 2.20 | 2.15 | 2.20 | 2.10 | 27 | 2.20 | 2.15 | 2.10 | 3.20 | 2.15 |
| 12 | 3.10 | 2.10 | 2.40 | 2.10 | 2.15 | 28 | 2.30 | 2.10 | 2.10 | 2.10 | 2.20 |
| 13 | 3.10 | 3.00 | 3.00 | 2.15 | 2.10 | 29 | 2.10 | 2.15 | 2.15 | 2.10 | 3.00 |
| 14 | 3.30 | 3.10 | 2.40 | 2.10 | 2.20 | 30 | 2.15 | ..... | 2.10 | 2.10 | 2.15 |
| 15 | 2.15 | 7.00 | 2.10 | 3.10 | 2.10 | 31 | 2.10 | ..... | 2.15 | ..... | 2.20 |
| 16 | 2.15 | 4.20 | 2.10 | 3.10 | 2.15 | | | | | | |

Rating Table for Oconalufty River near Cherokee, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.60 | 200 | 1.85 | 285 | 2.10 | 390 | 2.35 | 510 |
| 1.65 | 215 | 1.90 | 305 | 2.15 | 412 | 2.40 | 535 |
| 1.70 | 230 | 1.95 | 325 | 2.20 | 435 | 2.45 | 560 |
| 1.75 | 247 | 2.00 | 345 | 2.25 | 460 | 2.50 | 585. |
| 1.80 | 265 | 2.05 | 367 | 2.30 | 485 | | |

## SOCO CREEK NEAR CHEROKEE, N. C.

There is no gage at this station, but discharge measurements were made at the wagon bridge, about 500 feet above the mouth of creek, whenever they were made at the Oconalufty River station, just below.

The gage heights of the measurements are determined by measuring down from a nail in top of the upstream stringer, 4 feet to the left of the right bank pier; elevation 10 feet above datum. The datum of this bench mark is in no ways connected with that of the Oconalufty River gage.

Discharge Measurements of Soco Creek near Cherokee, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| Aug. 27 | F. A. Murray | 37 | 60 | 0.48 | 1.76 | 29 |
| Oct. 19 | Olin P. Hall | 40 | 65 | .55 | 1.78 | 36 |

### SCOTT'S CREEK NEAR DILLSBORO, N. C.

This station was established on August 26, 1907. It is at a footbridge about 1 mile from Dillsboro, and about the same distance above the mouth of the creek, which is a large tributary of Tuckaseegee River.

The vertical gage is attached to the maple trees which serve as a support for the footbridge, on the left bank.

The discharge measurements are made from the footbridge.

The right bank does not overflow, but at high stages water surrounds the left bank approach to the bridge. The current is mostly swift, and bed is fairly constant.

The bench mark is a nail in the downstream side of the large maple tree at upper edge of the bridge and the left bank; elevation 8.00 feet.

DISCHARGE MEASUREMENTS OF SCOTT'S CREEK NEAR DILLSBORO, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| Aug. 26 | F. A. Murray | 39 | 66 | 1.29 | 1.63 | 85 |
| Oct. 21 | Olin P. Hall | 40 | 63 | 1.25 | 1.61 | 79 |

DAILY GAGE HEIGHT, IN FEET, OF SCOTT'S CREEK NEAR DILLSBORO, N. C., FOR 1907.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 1.60 | 1.80 | 1.60 | 1.80 | 17 | | 1.65 | 1.60 | 1.70 | 1.85 |
| 2 | | 1.60 | 1.80 | 2.05 | 1.80 | 18 | | 1.60 | 1.60 | 2.05 | 1.80 |
| 3 | | 2.10 | 1.70 | 1.75 | 1.80 | 19 | | 1.60 | 1.60 | 1.80 | 1.80 |
| 4 | | 1.75 | 1.80 | 1.65 | 1.80 | 20 | | 1.60 | 1.60 | 1.75 | 1.75 |
| 5 | | 1.65 | 1.90 | 1.65 | 1.70 | 21 | | 1.60 | 1.60 | 2.00 | 1.80 |
| 6 | | 1.60 | 1.80 | 1.60 | 1.80 | 22 | | 2.60 | 1.60 | 1.95 | 1.80 |
| 7 | | 1.60 | 1.75 | 1.60 | 1.75 | 23 | | 2.85 | 1.60 | 2.70 | 2.20 |
| 8 | | 2.25 | 1.80 | 1.60 | 1.70 | 24 | | 1.80 | 1.60 | 2.30 | 2.00 |
| 9 | | 1.70 | 1.70 | 1.60 | 1.90 | 25 | | 1.70 | 1.60 | 2.10 | 1.90 |
| 10 | | 1.70 | 1.70 | 2.35 | 2.35 | 26 | 1.60 | 1.70 | 1.60 | 2.00 | 1.90 |
| 11 | | 1.75 | 1.70 | 1.85 | 2.00 | 27 | 1.60 | 1.70 | 1.85 | 2.00 | 1.90 |
| 12 | | 1.70 | 1.70 | 1.80 | 1.90 | 28 | 1.65 | 2.10 | 1.70 | 1.90 | 1.90 |
| 13 | | 1.65 | 1.65 | 1.80 | 1.95 | 29 | 1.60 | 2.00 | 1.60 | 1.90 | 1.90 |
| 14 | | 1.60 | 1.60 | 1.70 | 2.00 | 30 | 1.60 | 1.85 | 1.60 | 1.80 | 2.80 |
| 15 | | 1.60 | 1.60 | 1.70 | 1.90 | 31 | 1.60 | | 1.60 | | 2.20 |
| 16 | | 1.65 | 1.60 | 1.70 | 1.90 | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF SCOTT'S CREEK NEAR DILLSBORO, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 3.80 | 2.15 | 2.20 | 2.10 | 1.90 | 17 | 2.10 | 2.35 | 2.00 | 2.00 | 2.10 | 1.90 |
| 2 | 2.00 | 1.90 | 2.15 | 2.10 | 2.10 | 1.90 | 18 | 2.10 | 2.30 | 2.00 | 2.10 | 2.10 | 1.85 |
| 3 | 2.00 | 1.90 | 2.10 | 2.10 | 2.10 | 1.95 | 19 | 2.00 | 2.30 | 2.05 | 2.05 | 2.40 | 1.80 |
| 4 | 2.45 | 2.00 | 2.10 | 2.10 | 2.00 | 1.95 | 20 | 2.00 | 2.20 | 2.60 | 2.00 | 2.10 | 1.85 |
| 5 | 2.20 | 2.00 | 2.10 | 2.20 | 2.00 | 1.90 | 21 | 2.00 | 2.20 | 2.45 | 2.00 | 2.05 | 1.90 |
| 6 | 2.10 | 2.05 | 2.10 | 2.10 | 2.00 | 1.90 | 22 | 2.00 | 2.10 | 2.30 | 1.95 | 2.00 | 1.80 |
| 7 | 2.10 | 2.00 | 2.10 | 2.10 | 2.45 | 1.90 | 23 | 2.00 | 2.10 | 3.40 | 1.95 | 2.25 | 1.80 |
| 8 | 2.00 | 1.95 | 2.10 | 2.10 | 2.15 | 1.85 | 24 | 1.95 | 2.00 | 2.90 | 1.90 | 2.10 | 1.90 |
| 9 | 2.00 | 1.90 | 2.00 | 2.05 | 2.10 | 1.85 | 25 | 1.95 | 2.05 | 2.60 | 3.00 | 2.15 | 1.80 |
| 10 | 2.00 | 2.00 | 2.00 | 2.00 | 2.10 | 1.85 | 26 | 2.00 | 2.10 | 2.40 | 2.35 | 2.10 | 1.80 |
| 11 | 2.55 | 2.10 | 2.15 | 2.00 | 2.00 | 1.80 | 27 | 1.95 | 2.00 | 2.40 | 2.25 | 2.00 | 1.80 |
| 12 | 2.45 | 2.15 | 2.40 | 2.00 | 2.00 | 1.80 | 28 | 1.90 | 2.00 | 2.30 | 2.15 | 2.15 | 1.70 |
| 13 | 2.25 | 2.20 | 2.10 | 1.95 | 2.00 | 1.95 | 29 | 1.90 | 2.10 | 2.25 | 2.10 | 2.10 | 1.70 |
| 14 | 2.20 | 2.65 | 2.10 | 1.95 | 2.00 | 2.05 | 30 | 1.90 | ------ | 2.20 | 2.20 | 2.00 | 1.70 |
| 15 | 2.20 | 3.00 | 2.05 | 2.30 | 2.00 | 2.15 | 31 | 1.90 | ------ | 2.20 | ------ | 2.00 | -------- |
| 16 | 2.20 | 2.45 | 2.00 | 2.10 | 2.05 | 1.90 | | | | | | | |

RATING TABLE FOR SCOTT'S CREEK NEAR DILLSBORO, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.60 | 78 | 1.80 | 110 | 2.00 | 150 | 2.20 | 190 |
| 1.65 | 86 | 1.85 | 120 | 2.05 | 160 | 2.25 | 200 |
| 1.70 | 92 | 1.90 | 130 | 2.10 | 170 | 2.30 | 210 |
| 1.75 | 101 | 1.95 | 140 | 2.15 | 180 | | |

## NANTAHALA RIVER NEAR NANTAHALA, N. C.

This station was established on May 22, 1907, though discharge measurements referred to a bench mark which had been made before. It is at Mathew Cole's footbridge, about 1 mile above Nantahala.

The vertical gage is attached to the right bank abutment of the bridge from which the discharge measurements are made.

The banks are low, but will hardly ever overflow. The bed is rough and rocky and the current is swift and considerably broken.

A lumber flume, taking its water from a tributary creek several miles above, passes the station. The water flowing in this flume is measured when the station is visited, but the flow is not included with the regular measurements. The records for the station include the water in the river only, and the amount in the flume may be added to give total flow. This, however, presumes that the flume flow is continuous, which may not be true at all times.

The bench mark is a nail in a black locust tree on the left bank 20 feet below the bridge; elevation 3.73 feet.

DISCHARGE MEASUREMENTS OF NANTAHALA RIVER NEAR NANTAHALA, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Oct. 8 | Olin P. Hall | 50 | 120 | 0.96 | 0.82 | 115 |
| 1907. | | | | | | |
| May 22 | F. A. Murray | 64 | 208 | 1.87 | 1.76 | 388 |
| Aug. 23 | Frank P. Thomas | 66 | 190 | 1.72 | 1.50 | 326 |
| Aug. 23 | do | 66 | 190 | 1.71 | 1.50 | 323 |
| Oct. 17 | Olin P. Hall | 60 | 171 | 1.35 | 1.25 | 231 |

DAILY GAGE HEIGHT, IN FEET, OF NANTAHALA RIVER NEAR NANTAHALA, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.00 | 1.70 | 1.40 | 1.20 | 1.70 | 1.20 | 1.60 |
| 2 | | 2.35 | 1.70 | 1.40 | 1.20 | 1.55 | 2.05 | 1.60 |
| 3 | | 2.15 | 1.75 | 1.40 | 1.20 | 1.50 | 1.65 | 1.60 |
| 4 | | 2.00 | 1.70 | 1.40 | 1.20 | 1.50 | 1.50 | 1.50 |
| 5 | | 1.90 | 1.70 | 1.40 | 1.20 | 1.70 | 1.40 | 1.50 |
| 6 | | 1.90 | 1.70 | 1.40 | 1.20 | 1.45 | 1.40 | 1.50 |
| 7 | | 1.85 | 1.70 | 1.40 | 1.20 | 1.40 | 1.30 | 1.50 |
| 8 | | 2.55 | 1.70 | 1.30 | 1.25 | 1.60 | 1.30 | 1.50 |
| 9 | | 2.15 | 1.65 | 1.30 | 1.25 | 1.40 | 1.30 | 1.70 |
| 10 | | 2.00 | 1.50 | 1.30 | 1.10 | 1.35 | 2.30 | 2.50 |
| 11 | | 2.00 | 1.50 | 1.30 | 1.55 | 1.30 | 1.75 | 1.95 |
| 12 | | 1.90 | 2.15 | 1.30 | 1.30 | 1.30 | 1.60 | 1.90 |
| 13 | | 1.80 | 2.00 | 1.55 | 1.20 | 1.30 | 1.60 | 1.90 |
| 14 | | 1.80 | 1.75 | 1.50 | 1.15 | 1.25 | 1.50 | 2.45 |
| 15 | | 1.80 | 1.60 | 2.00 | 1.10 | 1.20 | 1.50 | 2.10 |
| 16 | | 1.70 | 1.60 | 1.65 | 1.10 | 1.20 | 1.50 | 2.00 |
| 17 | | 1.70 | 1.60 | 1.45 | 1.10 | 1.20 | 1.40 | 1.90 |
| 18 | | 1.70 | 1.60 | 1.50 | 1.05 | 1.20 | 1.40 | 1.90 |
| 19 | | 1.70 | 1.70 | 1.50 | 1.00 | 1.20 | 1.40 | 1.80 |
| 20 | | 1.70 | 1.70 | 1.40 | 1.00 | 1.20 | 1.40 | 1.80 |
| 21 | | 1.70 | 1.60 | 1.50 | 1.00 | 1.20 | 1.80 | 1.70 |
| 22 | 1.70 | 1.70 | 1.50 | 1.50 | 1.10 | 1.20 | 1.80 | 1.70 |
| 23 | 1.70 | 2.05 | 1.45 | 1.50 | 4.00 | 1.20 | 2.40 | 2.75 |
| 24 | 1.70 | 1.90 | 1.40 | 1.50 | 3.00 | 1.20 | 2.65 | 2.15 |
| 25 | 1.75 | 1.75 | 1.40 | 1.50 | 1.60 | 1.10 | 2.30 | 2.00 |
| 26 | 2.25 | 1.70 | 1.40 | 1.45 | 1.40 | 1.10 | 2.05 | 2.00 |
| 27 | 2.05 | 1.75 | 1.40 | 1.30 | 1.40 | 1.55 | 1.90 | 1.95 |
| 28 | 1.85 | 1.90 | 1.40 | 1.30 | 2.00 | 1.40 | 1.85 | 1.90 |
| 29 | 1.80 | 2.35 | 1.70 | 1.30 | 2.10 | 1.20 | 1.80 | 2.00 |
| 30 | 1.80 | 1.75 | 1.75 | 1.30 | 1.75 | 1.20 | 1.70 | 3.60 |
| 31 | 2.55 | | 1.50 | 1.25 | | 1.20 | | 2.75 |

Daily Gage Height, in Feet, of Nantahala River near Nantahala, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.45 | 2.50 | 2.00 | 2.20 | 2.30 | 1.75 | 1.30 | 1.30 | 1.40 | 1.10 |
| 2 | 2.30 | 2.00 | 2.25 | 2.15 | 2.15 | 1.70 | 1.30 | 1.30 | 1.40 | 1.10 |
| 3 | 2.20 | 2.00 | 2.20 | 2.10 | 2.10 | 1.70 | 1.50 | 1.30 | 1.40 | 1.10 |
| 4 | 2.30 | 2.00 | 2.20 | 2.10 | 2.10 | 1.70 | 1.65 | 1.30 | 1.30 | 1.10 |
| 5 | 2.80 | 2.00 | 2.20 | 2.10 | 2.10 | 1.70 | 1.95 | 1.20 | 2.20 | 1.10 |
| 6 | 2.45 | 2.20 | 2.20 | 2.00 | 2.00 | 1.70 | 1.85 | 2.00 | 1.75 | 1.10 |
| 7 | 2.35 | 2.10 | 2.20 | 2.00 | 2.55 | 1.70 | 1.60 | 1.50 | 1.45 | 1.10 |
| 8 | 2.30 | 2.00 | 2.10 | 2.00 | 2.15 | 1.70 | 1.90 | 1.60 | 1.40 | 1.10 |
| 9 | 2.20 | 2.00 | 2.10 | 2.00 | 2.10 | 1.70 | 2.00 | 1.80 | 1.30 | 1.30 |
| 10 | 2.10 | 2.05 | 2.00 | 1.95 | 2.10 | 1.70 | 1.85 | 1.55 | 1.30 | 1.50 |
| 11 | 2.40 | 2.00 | 2.20 | 1.90 | 2.10 | 1.70 | 1.70 | 1.40 | 1.30 | 1.20 |
| 12 | 3.60 | 2.20 | 2.65 | 1.90 | 2.05 | 1.60 | 1.65 | 1.40 | 1.30 | 1.10 |
| 13 | 3.00 | 2.65 | 2.35 | 1.85 | 2.00 | 1.60 | 1.60 | 1.35 | 1.30 | 1.10 |
| 14 | 2.75 | 2.80 | 2.30 | 1.80 | 1.95 | 1.80 | 1.60 | 1.30 | 1.20 | 1.10 |
| 15 | 2.50 | 4.20 | 2.20 | 2.55 | 1.90 | 1.70 | 1.55 | 1.30 | 1.20 | 1.05 |
| 16 | 2.45 | 3.35 | 2.15 | 2.30 | 1.90 | 1.70 | 1.50 | 1.30 | 1.20 | 1.00 |
| 17 | 2.40 | 3.00 | 2.10 | 2.15 | 1.90 | 1.55 | 1.50 | 1.30 | 1.20 | 1.00 |
| 18 | 2.30 | 2.90 | 2.10 | 2.10 | 1.90 | 1.50 | 1.45 | 1.25 | 1.20 | 1.00 |
| 19 | 2.30 | 2.90 | 2.00 | 2.10 | 1.90 | 1.50 | 1.60 | 1.55 | 1.20 | 1.00 |
| 20 | 2.30 | 2.40 | 2.50 | 2.05 | 1.90 | 1.50 | 1.50 | 1.50 | 1.20 | 1.00 |
| 21 | 2.10 | 2.30 | 2.35 | 2.00 | 1.90 | 1.50 | 1.40 | 1.50 | 1.20 | 1.00 |
| 22 | 2.10 | 2.30 | 2.30 | 2.00 | 1.80 | 1.50 | 1.35 | 2.05 | 1.10 | 1.00 |
| 23 | 2.00 | 2.25 | 2.60 | 1.95 | 1.80 | 1.50 | 1.30 | 1.75 | 1.10 | 2.20 |
| 24 | 2.00 | 2.20 | 3.65 | 1.90 | 1.90 | 1.45 | 1.30 | 1.70 | 1.10 | 1.50 |
| 25 | 2.00 | 2.20 | 3.00 | 3.60 | 1.90 | 1.40 | 1.30 | 2.40 | 1.10 | 1.30 |
| 26 | 2.20 | 2.20 | 2.75 | 2.65 | 1.95 | 1.40 | 1.30 | 1.90 | 1.10 | 1.30 |
| 27 | 2.20 | 2.20 | 2.70 | 2.40 | 1.85 | 1.40 | 1.30 | 1.65 | 1.10 | 1.25 |
| 28 | 2.00 | 2.20 | 2.55 | 2.30 | 1.80 | 1.40 | 1.30 | 1.60 | 1.30 | 1.20 |
| 29 | 2.00 | 2.20 | 2.45 | 2.30 | 1.80 | 1.40 | 1.60 | 1.60 | 1.25 | 1.85 |
| 30 | 2.00 | ..... | 2.40 | 2.30 | 1.80 | 1.30 | 1.45 | 1.50 | 1.10 | 1.50 |
| 31 | 2.00 | ..... | 2.30 | ..... | 1.80 | ..... | 1.30 | 1.40 | ..... | 1.40 |

Rating Table for Nantahala River near Nantahala, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.00 | 165 | 1.30 | 252 | 1.60 | 342 | 1.90 | 438 |
| 1.05 | 179 | 1.35 | 267 | 1.65 | 358 | 1.95 | 454 |
| 1.10 | 193 | 1.40 | 282 | 1.70 | 374 | 2.00 | 470 |
| 1.15 | 207 | 1.45 | 297 | 1.75 | 390 | | |
| 1.20 | 222 | 1.50 | 312 | 1.80 | 406 | | |
| 1.25 | 237 | 1.55 | 327 | 1.85 | 422 | | |

## CULLASAJA RIVER AT CULLASAJA, N. C.

This station was established June 13, 1907. It is located at Cullasaja, N. C., 5 miles southeast of Franklin, N. C.

The gage is a 10-foot vertical rod spiked to upstream post of left bank bridge pier, facing right bank.

Discharge measurements are made from upstream side of Cullasaja open wooden wagon bridge 110 feet long.

Both banks are high and are likely to overflow only during very high water. Bed of stream is rock and water is swift at all stages.

Bench mark is a nail in upstream side of a large beech tree on right bank about 40 feet below bridge. Its elevation is 7.00 feet.

DISCHARGE MEASUREMENTS OF CULLASAJA RIVER AT CULLASAJA, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1907. | | | | | | |
| June 13 | F. A. Murray | 37 | 90 | 2.08 | 1.60 | 187 |
| July 18 | do | 36 | 79 | 1.66 | 1.32 | 131 |
| July 18 | B. M. Hall, Jr. | 36 | 80 | 1.58 | 1.32 | 126 |
| Aug. 29 | F. A. Murray | 33 | 67 | 1.16 | .95 | 78 |
| Aug. 29 | do | 33 | 71 | 1.18 | .95 | 84 |
| Nov. 9 | do | 34 | 64 | 1.25 | .92 | 80 |
| Nov. 9 | do | 34 | 64 | 1.28 | .94 | 82 |

DAILY GAGE HEIGHT, IN FEET, OF CULLASAJA RIVER AT CULLASAJA, N. C., FOR 1907.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | | 1.65 | 1.05 | 0.90 | 1.25 | 0.90 | 1.50 |
| 2 | | 1.55 | 1.05 | 1.10 | 1.15 | 2.10 | 1.45 |
| 3 | | 1.55 | 1.00 | 1.45 | 1.10 | 1.80 | 1.45 |
| 4 | | 1.70 | 1.00 | 1.00 | 1.05 | 1.05 | 1.35 |
| 5 | | 1.65 | 1.00 | 1.00 | 1.30 | 1.00 | 1.35 |
| 6 | | 1.45 | 1.20 | .95 | 1.00 | 1.00 | 1.35 |
| 7 | | 1.40 | 1.00 | 1.00 | 1.00 | 1.00 | 1.35 |
| 8 | | 1.40 | 1.00 | .95 | 1.20 | 1.00 | 1.30 |
| 9 | | 1.30 | .95 | .90 | 1.00 | .95 | 2.30 |
| 10 | | 1.30 | .95 | .90 | 1.00 | 1.05 | 3.00 |
| 11 | | 1.35 | 1.10 | 1.20 | .95 | 1.30 | 1.80 |
| 12 | | 1.70 | 1.25 | .85 | .95 | 1.25 | 2.00 |
| 13 | 1.60 | 1.60 | 1.10 | .85 | .90 | 1.10 | 1.95 |
| 14 | 1.80 | 1.40 | 1.25 | .90 | .90 | 1.10 | 3.65 |
| 15 | 1.65 | 1.65 | 1.20 | .90 | .90 | 1.05 | 2.85 |
| 16 | 1.65 | 1.35 | 1.00 | .90 | .90 | 1.05 | 2.00 |
| 17 | 1.45 | 1.30 | 1.05 | .85 | .90 | 1.00 | 2.25 |
| 18 | 1.45 | 1.30 | 1.50 | .85 | .90 | 2.30 | 2.20 |
| 19 | 1.50 | 1.30 | 1.25 | .85 | .90 | 1.50 | 2.00 |
| 20 | 1.60 | 1.25 | 1.55 | .80 | .90 | 1.45 | 1.90 |
| 21 | 1.50 | 1.15 | 1.50 | .80 | .85 | 2.95 | 1.80 |
| 22 | 1.45 | 1.15 | 1.05 | .95 | .85 | 2.25 | 1.80 |
| 23 | 2.90 | 1.10 | 1.00 | 3.00 | .85 | 2.85 | 4.00 |
| 24 | 1.75 | 1.30 | 1.10 | 1.65 | .80 | 3.80 | 3.00 |
| 25 | 2.05 | 1.10 | 1.00 | 1.60 | .80 | 2.40 | 2.65 |
| 26 | 1.80 | 1.10 | .95 | 1.00 | .80 | 2.10 | 2.50 |
| 27 | 1.75 | 1.10 | .90 | 1.00 | 1.10 | 1.80 | 2.35 |
| 28 | 2.20 | 1.10 | 1.00 | 2.35 | 1.05 | 1.75 | 2.35 |
| 29 | 1.75 | 1.15 | .95 | 1.80 | 1.00 | 1.65 | 2.15 |
| 30 | 1.40 | 1.40 | .95 | 1.45 | .95 | 1.60 | 3.90 |
| 31 | | 1.20 | .95 | | .90 | | 2.80 |

Daily Gage Height, in Feet, of Cullasaja River at Cullasaja, N. C., for 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.65 | 2.50 | 2.35 | 2.10 | 2.50 | 1.80 | 1.40 | 1.15 | 1.00 | 1.00 |
| 2 | 2.40 | 2.30 | 2.45 | 2.50 | 2.40 | 1.65 | 1.40 | 1.00 | 1.00 | .90 |
| 3 | 2.15 | 2.15 | 2.30 | 2.00 | 2.35 | 1.60 | 1.50 | 1.05 | 1.10 | .90 |
| 4 | 2.70 | 2.00 | 2.20 | 2.00 | 2.35 | 1.65 | 2.00 | 1.00 | 1.10 | .90 |
| 5 | 2.80 | 1.95 | 2.20 | 2.05 | 2.20 | 1.80 | 1.70 | 1.15 | 2.40 | .85 |
| 6 | 2.45 | 2.10 | 2.20 | 2.00 | 2.10 | 1.75 | 1.85 | 1.70 | 1.85 | .85 |
| 7 | 2.35 | 1.95 | 2.20 | 1.90 | 3.00 | 1.55 | 1.80 | 1.30 | 1.45 | .85 |
| 8 | 2.20 | 1.90 | 2.00 | 1.90 | 2.40 | 1.50 | 1.75 | 1.40 | 1.40 | .85 |
| 9 | 2.10 | 1.90 | 2.05 | 1.85 | 2.30 | 1.50 | 2.50 | 1.50 | 1.30 | 1.85 |
| 10 | 2.00 | 2.05 | 2.05 | 1.85 | 2.25 | 1.50 | 1.95 | 1.30 | 1.20 | 1.90 |
| 11 | 4.10 | 2.30 | 2.25 | 1.80 | 2.20 | 1.50 | 1.85 | 1.25 | 1.00 | 1.10 |
| 12 | 4.50 | 2.90 | 2.35 | 1.75 | 2.10 | 1.65 | 1.85 | 1.15 | 1.00 | 1.00 |
| 13 | 3.40 | 3.10 | 2.05 | 1.70 | 2.00 | 1.50 | 1.85 | 1.10 | 1.00 | 1.00 |
| 14 | 3.05 | 3.20 | 2.10 | 1.70 | 2.00 | (*) | 1.70 | 1.05 | 1.00 | 1.00 |
| 15 | 2.85 | 6.00 | 2.00 | 2.50 | 2.00 | 2.25 | 1.60 | 1.00 | 1.10 | 1.00 |
| 16 | 2.80 | 4.50 | 2.00 | 2.35 | 2.00 | 1.80 | 1.50 | 1.05 | 1.10 | .95 |
| 17 | 2.60 | 4.30 | 1.95 | 2.35 | 2.00 | 1.75 | 1.50 | 1.20 | 1.10 | .90 |
| 18 | 2.45 | 3.10 | 1.90 | 2.30 | 2.00 | 1.65 | 1.50 | 1.15 | 1.05 | .90 |
| 19 | 2.35 | 3.00 | 1.85 | 2.20 | 2.05 | 1.55 | 1.50 | 1.15 | 1.00 | .90 |
| 20 | 2.25 | 2.80 | 2.60 | 2.05 | 2.00 | 1.55 | 1.45 | 1.10 | 1.00 | .90 |
| 21 | 2.25 | 2.70 | 2.45 | 2.05 | 1.95 | 1.65 | 1.35 | 1.10 | 1.00 | .90 |
| 22 | 2.20 | 2.60 | 2.15 | 1.95 | 1.85 | 1.55 | 1.30 | 2.10 | 1.00 | 1.50 |
| 23 | 2.15 | 2.50 | 4.50 | 1.90 | 1.80 | 1.50 | 1.30 | 2.00 | 1.00 | 3.20 |
| 24 | 2.00 | 2.45 | 3.50 | 4.70 | 1.90 | 2.15 | 1.30 | 3.50 | 1.00 | 1.85 |
| 25 | 2.00 | 2.35 | 3.00 | 3.40 | 1.85 | 1.50 | 1.30 | 3.00 | .95 | 1.40 |
| 26 | 2.00 | 2.45 | 2.80 | 3.40 | 2.30 | 1.45 | 1.35 | 2.20 | 1.00 | 1.40 |
| 27 | 2.00 | 2.40 | 2.60 | 3.00 | 2.00 | 1.40 | 1.20 | 1.80 | 1.00 | 1.20 |
| 28 | 1.95 | 2.35 | 2.50 | 2.70 | 1.90 | 1.40 | 1.40 | 1.75 | 1.30 | 2.50 |
| 29 | 1.90 | 2.20 | 2.40 | 2.60 | 1.90 | 1.40 | 1.30 | 1.70 | 1.00 | 2.40 |
| 30 | 1.90 | ..... | 2.40 | 2.60 | 1.85 | 1.40 | 1.30 | 1.50 | 1.00 | 2.40 |
| 31 | 1.90 | ..... | 2.30 | ..... | 1.80 | ..... | 1.20 | 1.40 | ..... | 2.40 |

*No reading.

Rating Table for Cullasaja River at Cullasaja, N. C., for 1907 and 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.80 | 65 | 1.15 | 108 | 1.50 | 159 | 1.85 | 219 |
| .85 | 70 | 1.20 | 115 | 1.55 | 167 | 1.90 | 228 |
| .90 | 76 | 1.25 | 122 | 1.60 | 175 | 1.95 | 238 |
| .95 | 82 | 1.30 | 129 | 1.65 | 183 | 2.00 | 248 |
| 1.00 | 88 | 1.35 | 136 | 1.70 | 192 | | |
| 1.05 | 94 | 1.40 | 144 | 1.75 | 201 | | |
| 1.10 | 101 | 1.45 | 151 | 1.80 | 210 | | |

### FRENCH BROAD RIVER AT OLDTOWN, TENN.

This was originally one of the temporary stations established in connection with the general hydrographic study of the southern Appalachian region.

The channel is straight for about 600 feet above and below the station. The velocity is moderately swift, and is considerably obstructed by old piling and logs. Both banks are high and wooded, and all water passes beneath the bridge at all stages. The bed is of gravel and sand.

Discharge measurements are made from the downstream side of the steel highway bridge of four spans. The initial point for soundings is the end of the guard rail at the left end of the bridge, on the downstream side.

The original gage put in at this station was carried away with the old bridge by flood early in the spring of 1902. A wire gage was established on the new bridge October 27, 1902, by B. S. Drane. The wire gage was replaced April 29, 1903, by a standard chain gage at the same datum. The length of the chain is 28.00 feet. The gage is referred to bench marks as follows: (1) A point marked in white paint on the sharp rectangular corner of the angle-iron connection between the floor beam and the first post on the downstream side in the second span from the left end of the bridge; elevation, 25.84 feet. (2) The top of a copper bolt set in a bowlder projecting from the hillside on the left bank 175 feet downstream from the center line of the bridge, 8 feet from the center of the road, and about 4 feet above ground. This rock is the first smooth-faced ledge of limestone outcropping close to the road. The face next the road is nearly vertical for a length of 4 feet. Elevation of bench mark, 29.52 feet. Elevations refer to the datum of the gage. The station was abandoned December 31, 1905.

DISCHARGE MEASUREMENTS OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Feb. 12 | E. W. Myers | --- | 2,814 | ---- | 4.32 | 12,874 |
| Mar. 17 | ----do | --- | 2,274 | ---- | 2.87 | 5,059 |
| Apr. 2 | B. S. Drane | --- | 2,752 | ---- | 4.11 | 10,660 |
| Apr. 30 | E. C. Murphy | --- | ----- | ---- | 2.58 | 4,611 |
| June 30 | B. S. Drane | --- | 1,958 | ---- | 2.25 | 3,532 |
| June 30 | ----do | --- | 1,978 | ---- | 2.24 | 3,268 |
| Aug. 12 | ----do | --- | 1,703 | ---- | 1.80 | 2,279 |
| Aug. 12 | M. R. Hall | --- | 1,708 | ---- | 1.82 | 2,246 |
| Sept. 2 | B. S. Drane | --- | 1,615 | ---- | 1.45 | 1,167 |
| Oct. 14 | ----do | --- | 1,545 | ---- | 1.31 | 986 |
| Oct. 14 | ----do | --- | 1,541 | ---- | 1.31 | 992 |
| 1904. | | | | | | |
| Feb. 23 | B. S. Drane | 453 | 2,155 | 2.59 | 2.92 | 5,568 |
| Feb. 23 | ----do | 453 | 2,136 | 2.51 | 2.87 | 5,358 |
| Mar. 29 | ----do | 450 | 1,928 | 1.97 | 2.34 | 3,804 |
| Apr. 27 | M. R. Hall | 448 | 1,925 | 1.57 | 2.12 | 3,025 |
| July 8 | J. M. Giles | 334 | 1,371 | .76 | 1.30 | 1,045 |
| Aug. 20 | B. S. Drane | 463 | 1,492 | .92 | 1.50 | 1,380 |
| Oct. 15 | ----do | 442 | 1,267 | .40 | .98 | 508 |
| 1905. | | | | | | |
| Feb. 9 | B. S. Drane | 395 | 2,028 | 2.25 | 2.50 | 4,564 |
| May 11 | W. E. Hall | 379 | 2,059 | 2.05 | 2.54 | 4,208 |
| June 20 | B. S. Drane | 396 | 2,125 | 2.14 | 2.70 | 4,547 |
| Aug. 21 | W. E. Hall | 361 | 1,964 | 1.53 | 2.13 | 3,007 |
| Dec. 19 | F. A. Murray | 375 | 1,894 | 1.38 | 1.95 | 2,627 |
| Dec. 26 | ----do | 377 | 2,002 | 1.70 | 2.19 | 3,399 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN., FOR 1902.

| Day. | Nov. | Dec. | Day. | Nov. | Dec. | Day. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.40 | 2.10 | 12 | 1.40 | 1.90 | 23 | 1.60 | 2.50 |
| 2 | 1.40 | 2.20 | 13 | 1.50 | 1.90 | 24 | 1.60 | 2.60 |
| 3 | 1.40 | 2.30 | 14 | 1.40 | 1.90 | 25 | 2.00 | 2.40 |
| 4 | 1.40 | 3.20 | 15 | 1.40 | 1.90 | 26 | 2.20 | 2.20 |
| 5 | 1.40 | 2.80 | 16 | 1.50 | 2.00 | 27 | 2.10 | 2.00 |
| 6 | 1.60 | 2.60 | 17 | 1.60 | 3.00 | 28 | 1.90 | 2.10 |
| 7 | 1.80 | 2.40 | 18 | 1.60 | 2.90 | 29 | 1.90 | 2.00 |
| 8 | 2.00 | 2.30 | 19 | 1.90 | 2.30 | 30 | 2.00 | 1.90 |
| 9 | 1.20 | 2.20 | 20 | 1.80 | 2.20 | 31 | ------- | 2.00 |
| 10 | 1.30 | 2.10 | 21 | 1.70 | 2.10 | | | |
| 11 | 1.30 | 2.00 | 22 | 1.60 | 2.20 | | | |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN., FOR 1903 AND 1904.

| 1903. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 2.10 | 2.00 | 5.50 | 4.80 | 2.50 | 2.40 | 2.20 | 2.00 | 1.50 | 1.20 | 1.20 | 1.20 |
| 2 | 2.20 | 1.90 | 4.40 | 4.00 | 2.50 | 3.30 | 2.10 | 2.00 | 1.50 | 1.20 | 1.20 | 1.30 |
| 3 | 2.40 | 2.00 | 3.90 | 3.60 | 2.40 | 3.20 | 2.00 | 2.10 | 1.40 | 1.20 | 1.20 | 1.30 |
| 4 | 2.50 | 3.80 | 3.20 | 4.30 | 2.80 | 2.80 | 2.20 | 2.00 | 1.40 | 1.20 | 1.50 | 1.30 |
| 5 | 2.50 | 3.70 | 3.00 | 3.70 | 2.60 | 2.50 | 2.00 | 2.10 | 1.50 | 1.20 | 1.60 | 1.30 |
| 6 | 2.40 | 3.00 | 3.50 | 3.40 | 2.50 | 4.50 | 2.40 | 2.00 | 1.50 | 1.30 | 1.70 | 1.30 |
| 7 | 2.30 | 2.70 | 3.80 | 3.20 | 2.40 | 4.70 | 2.30 | 1.90 | 1.40 | 1.30 | 1.60 | 1.30 |
| 8 | 2.20 | 4.60 | 3.80 | 12.00 | 2.30 | 4.60 | 2.20 | 1.80 | 1.40 | 1.40 | 1.50 | 1.20 |
| 9 | 2.10 | 4.00 | 4.80 | 5.90 | 2.30 | 4.20 | 2.10 | 1.60 | 1.40 | 1.50 | 1.40 | 1.20 |
| 10 | 2.00 | 3.30 | 4.00 | 4.60 | 2.30 | 4.00 | 2.00 | 1.70 | 1.30 | 1.60 | 1.30 | 1.20 |
| 11 | 1.90 | 3.20 | 4.20 | 3.80 | 2.30 | 4.10 | 2.10 | 1.90 | 1.40 | 1.50 | 1.30 | 1.20 |
| 12 | 2.10 | 4.40 | 4.60 | 3.40 | 2.20 | 3.70 | 2.40 | 1.80 | 1.30 | 1.40 | 1.30 | 1.20 |
| 13 | 2.40 | 3.80 | 4.50 | 4.40 | 2.20 | 3.20 | 2.70 | 1.70 | 1.30 | 1.40 | 1.30 | 1.20 |
| 14 | 2.20 | 3.20 | 3.80 | 5.80 | 2.20 | 2.80 | 2.60 | 1.60 | 1.30 | 1.30 | 1.30 | 1.30 |
| 15 | 2.20 | 2.90 | 3.20 | 5.20 | 2.10 | 2.60 | 2.20 | 1.70 | 1.40 | 1.30 | 1.30 | 1.30 |
| 16 | 2.20 | 3.90 | 3.00 | 4.70 | 2.10 | 2.50 | 2.00 | 1.80 | 1.40 | 1.30 | 1.20 | 1.30 |
| 17 | 2.10 | 6.50 | 2.90 | 4.20 | 2.10 | 2.40 | 2.20 | 1.90 | 1.50 | 1.40 | 1.50 | 1.20 |
| 18 | 2.00 | 4.70 | 2.80 | 3.80 | 2.10 | 2.30 | 2.00 | 2.00 | 1.50 | 1.40 | 2.10 | 1.20 |
| 19 | 2.00 | 3.60 | 2.70 | 3.50 | 2.10 | 2.30 | 1.90 | 1.90 | 1.50 | 1.40 | 1.80 | 1.20 |
| 20 | 1.90 | 3.10 | 2.60 | 3.40 | 2.00 | 2.30 | 1.90 | 1.80 | 1.40 | 1.30 | 1.60 | 1.20 |
| 21 | 2.00 | 3.00 | 2.70 | 3.50 | 2.00 | 2.40 | 1.80 | 1.70 | 1.40 | 1.30 | 1.50 | 1.50 |
| 22 | 2.10 | 2.80 | 3.30 | 3.30 | 2.10 | 2.20 | 1.80 | 1.70 | 1.30 | 1.30 | 1.50 | 1.70 |
| 23 | 2.00 | 2.70 | 11.80 | 3.40 | 2.00 | 2.50 | 1.80 | 1.60 | 1.30 | 1.20 | 1.50 | 1.50 |
| 24 | 1.90 | 2.60 | 7.50 | 3.10 | 2.00 | 2.30 | 1.70 | 1.60 | 1.30 | 1.20 | 1.40 | 1.40 |
| 25 | 1.90 | 2.50 | 6.40 | 3.00 | 2.00 | 2.10 | 1.70 | 1.60 | 1.30 | 1.20 | 1.40 | 1.50 |
| 26 | 1.90 | 2.40 | 4.90 | 2.90 | 1.90 | 2.20 | 1.70 | 1.50 | 1.30 | 1.20 | 1.30 | 1.60 |
| 27 | 2.00 | 2.30 | 3.90 | 2.80 | 1.90 | 2.30 | 1.60 | 1.50 | 1.20 | 1.30 | 1.30 | 1.50 |
| 28 | 1.90 | 6.50 | 3.40 | 2.70 | 2.00 | 2.50 | 1.60 | 1.50 | 1.30 | 1.30 | 1.30 | 1.50 |
| 29 | 2.00 | ..... | 3.20 | 2.60 | 2.10 | 2.40 | 1.60 | 1.40 | 1.30 | 1.20 | 1.20 | 1.40 |
| 30 | 2.10 | ..... | 5.60 | 2.60 | 2.40 | 2.30 | 1.90 | 1.70 | 1.20 | 1.20 | 1.20 | 1.40 |
| 31 | 2.00 | ..... | 5.30 | ..... | 2.90 | ..... | 1.80 | 1.60 | ..... | 1.20 | ..... | 1.40 |
| 1904. | | | | | | | | | | | | |
| 1 | 1.30 | 1.50 | 1.90 | 2.00 | 2.00 | 2.30 | 1.95 | 1.40 | 1.45 | 1.10 | 0.95 | 1.25 |
| 2 | 1.30 | 1.50 | 2.00 | 1.90 | 1.80 | 2.40 | 1.70 | 1.70 | 1.40 | 1.10 | 1.00 | 1.20 |
| 3 | 1.30 | 1.40 | 1.90 | 1.80 | 2.00 | 2.00 | 1.60 | 1.60 | 1.80 | 1.05 | 1.05 | 1.30 |
| 4 | 1.30 | 1.50 | 1.90 | 1.80 | 1.85 | 1.80 | 1.50 | 1.50 | 1.90 | 1.00 | 1.10 | 1.35 |
| 5 | 1.20 | 1.50 | 1.90 | 1.75 | 1.90 | 1.70 | 1.40 | 1.65 | 1.80 | 1.00 | 1.50 | 1.45 |
| 6 | 1.20 | 1.40 | 2.00 | 1.70 | 1.80 | 1.60 | 1.45 | 1.60 | 1.70 | 1.00 | 1.70 | 1.95 |
| 7 | 1.20 | 1.60 | 2.90 | 1.75 | 1.85 | 1.70 | 1.40 | 1.70 | 1.45 | 1.00 | 1.40 | 2.10 |
| 8 | 1.30 | 2.10 | 4.50 | 1.90 | 2.00 | 1.90 | 1.30 | 1.80 | 1.40 | 1.00 | 1.30 | 1.70 |
| 9 | 1.40 | 2.10 | 3.70 | 2.00 | 3.35 | 1.85 | 1.70 | 1.80 | 1.35 | 1.00 | 1.20 | 1.50 |
| 10 | 1.30 | 1.80 | 2.70 | 2.00 | 2.80 | 1.65 | 1.60 | 1.85 | 1.40 | 1.00 | 1.10 | 1.50 |
| 11 | 1.30 | 1.70 | 2.55 | 2.00 | 2.40 | 1.70 | 1.50 | 1.90 | 1.35 | .95 | 1.00 | 1.50 |
| 12 | 1.40 | 1.60 | 2.30 | 1.90 | 2.20 | 1.65 | 1.40 | 2.00 | 1.40 | 1.00 | 1.10 | 1.45 |
| 13 | 1.70 | 1.50 | 2.15 | 1.90 | 2.00 | 1.60 | 1.30 | 1.90 | 1.40 | 1.00 | 1.20 | 1.40 |
| 14 | 1.60 | 1.40 | 2.10 | 1.80 | 1.95 | 1.50 | 1.30 | 1.70 | 1.35 | .95 | 1.45 | 1.35 |
| 15 | 1.60 | 1.60 | 2.20 | 1.80 | 1.90 | 1.45 | 1.20 | 1.60 | 1.30 | 1.00 | 1.45 | 1.35 |
| 16 | 1.50 | 1.50 | 2.00 | 1.80 | 1.80 | 1.45 | 1.15 | 1.70 | 1.25 | .95 | 1.40 | 1.30 |
| 17 | 2.00 | 1.50 | 1.90 | 1.80 | 1.75 | 1.40 | 1.15 | 1.55 | 1.20 | .95 | 1.35 | 1.30 |
| 18 | 2.10 | 1.50 | 1.90 | 1.80 | 1.70 | 1.40 | 1.15 | 1.55 | 1.20 | .90 | 1.30 | 1.35 |
| 19 | 2.10 | 1.40 | 1.95 | 1.70 | 1.70 | 1.85 | 1.20 | 1.50 | 1.15 | .95 | 1.30 | 1.30 |
| 20 | 1.90 | 1.50 | 1.90 | 1.70 | 1.70 | 1.75 | 1.20 | 1.50 | 1.20 | .95 | 1.25 | 1.25 |
| 21 | 1.90 | 1.60 | 2.00 | 1.75 | 1.65 | 1.70 | 1.40 | 1.50 | 1.15 | 1.00 | 1.25 | 1.30 |
| 22 | 2.00 | 1.80 | 2.20 | 1.80 | 1.60 | 1.75 | 1.30 | 1.50 | 1.20 | .95 | 1.25 | 1.20 |
| 23 | 2.10 | 2.90 | 4.20 | 1.70 | 1.55 | 1.65 | 1.40 | 1.55 | 1.15 | 1.05 | 1.40 | 1.25 |
| 24 | 2.50 | 2.30 | 3.70 | 1.75 | 1.60 | 1.55 | 1.55 | 1.95 | 1.15 | .95 | 1.30 | 1.30 |
| 25 | 1.90 | 2.00 | 3.10 | 1.70 | 1.65 | 1.45 | 1.85 | 1.70 | 1.15 | 1.00 | 1.25 | 1.35 |
| 26 | 1.80 | 1.90 | 2.80 | 1.75 | 1.60 | 1.50 | 1.50 | 1.75 | 1.10 | 1.00 | 1.25 | 1.35 |
| 27 | 1.60 | 2.20 | 2.75 | 2.15 | 1.60 | 1.60 | 1.50 | 1.70 | 1.20 | 1.00 | 1.10 | 1.40 |
| 28 | 1.60 | 2.20 | 2.60 | 2.30 | 1.55 | 1.70 | 1.45 | 2.00 | 1.10 | .95 | 1.00 | 1.60 |
| 29 | 1.50 | 2.00 | 2.30 | 2.20 | 1.50 | 1.90 | 1.40 | 1.95 | 1.15 | 1.00 | 1.10 | 2.25 |
| 30 | 1.40 | ..... | 2.20 | 2.10 | 1.50 | 1.90 | 1.30 | 1.60 | 1.15 | 1.00 | 1.20 | 1.80 |
| 31 | 1.70 | ..... | 2.10 | ..... | 1.80 | ..... | 1.30 | 1.50 | ..... | 1.00 | ..... | 1.60 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN., FOR 1905.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.55 | 2.00 | 2.25 | 1.65 | 1.90 | 2.05 | 2.15 | 1.95 | 1.80 | 1.35 | 1.40 | 1.35 |
| 2 | 1.50 | 1.65 | 2.15 | 1.65 | 1.80 | 1.95 | 3.00 | 1.90 | 1.90 | 1.35 | 1.35 | 1.35 |
| 3 | 1.60 | 1.60 | 2.10 | 1.60 | 1.70 | 1.85 | 2.75 | 1.80 | 2.20 | 1.40 | 1.30 | 4.10 |
| 4 | 1.60 | 1.55 | 2.05 | 1.60 | 1.70 | 1.75 | 2.25 | 1.80 | 2.00 | 1.50 | 1.30 | 3.30 |
| 5 | 1.40 | 1.50 | 2.00 | 1.70 | 2.60 | 1.75 | 2.20 | 1.95 | 1.90 | 1.60 | 1.30 | 2.40 |
| 6 | 1.75 | 1.55 | 1.95 | 2.10 | 2.55 | 1.80 | 2.65 | 1.90 | 1.80 | 1.50 | 1.35 | 1.90 |
| 7 | 2.20 | 1.65 | 1.90 | 2.20 | 3.20 | 1.70 | 2.40 | 1.95 | 1.75 | 1.50 | 1.40 | 1.80 |
| 8 | 2.25 | 1.90 | 1.95 | 2.00 | 3.80 | 1.70 | 2.05 | 2.25 | 1.70 | 1.40 | 1.35 | 1.70 |
| 9 | 1.80 | 2.50 | 2.00 | 1.95 | 2.90 | 1.70 | 2.10 | 3.00 | 1.65 | 1.35 | 1.30 | 2.70 |
| 10 | 1.80 | 2.90 | 2.25 | 2.25 | 2.45 | 1.60 | 2.40 | 2.75 | 1.65 | 1.40 | 1.30 | 3.80 |
| 11 | 1.70 | 2.55 | 2.65 | 2.10 | 2.50 | 1.60 | 2.50 | 3.60 | 1.65 | 1.50 | 1.35 | 3.00 |
| 12 | 2.40 | 2.20 | 2.40 | 2.85 | 2.20 | 1.65 | 9.30 | 4.60 | 1.60 | 2.55 | 1.30 | 2.35 |
| 13 | 4.80 | 2.50 | 2.30 | 2.60 | 2.75 | 1.90 | 7.60 | 4.20 | 1.60 | 1.95 | 1.25 | 2.10 |
| 14 | 4.10 | 3.00 | 2.20 | 2.40 | 2.55 | 1.65 | 6.00 | 3.70 | 1.60 | 1.65 | 1.30 | 1.95 |
| 15 | 2.65 | 2.50 | 2.10 | 2.20 | 2.40 | 1.55 | 5.10 | 3.10 | 1.55 | 1.50 | 1.30 | 1.90 |
| 16 | 2.15 | 2.10 | 2.00 | 2.00 | 4.00 | 1.60 | 4.10 | 2.70 | 1.55 | 1.50 | 1.30 | 2.25 |
| 17 | 2.00 | 2.05 | 1.95 | 1.95 | 3.80 | 3.60 | 3.10 | 2.60 | 1.55 | 1.50 | 1.25 | 2.10 |
| 18 | 1.95 | 2.00 | 1.85 | 1.90 | 2.85 | 3.40 | 2.80 | 2.40 | 1.50 | 1.45 | 1.25 | 2.00 |
| 19 | 1.90 | 1.90 | 1.80 | 1.80 | 2.40 | 3.20 | 2.40 | 2.30 | 1.50 | 1.40 | 1.30 | 1.90 |
| 20 | 1.80 | 2.10 | 1.85 | 1.75 | 2.20 | 2.75 | 2.80 | 2.40 | 1.60 | 1.55 | 1.25 | 1.90 |
| 21 | 1.70 | 4.40 | 1.90 | 1.75 | 2.05 | 2.50 | 2.55 | 2.10 | 1.60 | 1.50 | 1.30 | 2.30 |
| 22 | 1.70 | 4.30 | 2.10 | 1.75 | 2.15 | 2.50 | 2.70 | 2.10 | 1.60 | 1.50 | 1.35 | 2.90 |
| 23 | 1.65 | 3.80 | 1.95 | 1.70 | 2.70 | 2.35 | 2.65 | 2.20 | 1.50 | 1.40 | 1.30 | 2.60 |
| 24 | 1.60 | 3.20 | 1.90 | 1.60 | 2.50 | 2.20 | 2.40 | 2.30 | 1.50 | 1.40 | 1.30 | 2.60 |
| 25 | 1.60 | 2.85 | 1.85 | 1.60 | 2.35 | 2.00 | 2.30 | 2.60 | 1.45 | 1.40 | 1.30 | 2.35 |
| 26 | 1.50 | 2.65 | 1.85 | 1.65 | 2.15 | 1.90 | 2.20 | 2.45 | 1.40 | 1.50 | 1.25 | 2.15 |
| 27 | 1.40 | 2.50 | 1.80 | 1.75 | 2.25 | 2.40 | 2.10 | 2.30 | 1.40 | 1.55 | 1.25 | 2.00 |
| 28 | 1.30 | 2.40 | 1.75 | 1.80 | 3.10 | 2.10 | 2.20 | 2.10 | 1.35 | 1.55 | 1.30 | 1.95 |
| 29 | 1.20 | ..... | 1.70 | 1.85 | 3.00 | 1.90 | 2.40 | 2.00 | 1.40 | 1.50 | 1.35 | 2.00 |
| 30 | 1.15 | ..... | 1.70 | 1.95 | 2.40 | 1.95 | 2.70 | 1.90 | 1.35 | 1.45 | 1.40 | 2.20 |
| 31 | 1.50 | ..... | 1.70 | ..... | 2.25 | ..... | 2.20 | 1.90 | ..... | 1.40 | ..... | 2.00 |

RATING TABLE FOR FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN., FOR 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.2 | 735 | 2.9 | 5,440 | 4.6 | 14,050 | 6.3 | 25,100 |
| 1.3 | 965 | 3.0 | 5,820 | 4.7 | 14,700 | 6.4 | 25,750 |
| 1.4 | 1,200 | 3.1 | 6,220 | 4.8 | 15,350 | 6.5 | 26,400 |
| 1.5 | 1,440 | 3.2 | 6,630 | 4.9 | 16,000 | 6.6 | 27,050 |
| 1.6 | 1,685 | 3.3 | 7,060 | 5.0 | 16,650 | 6.7 | 27,700 |
| 1.7 | 1,935 | 3.4 | 7,510 | 5.1 | 17,300 | 6.8 | 28,350 |
| 1.8 | 2,190 | 3.5 | 7,980 | 5.2 | 17,950 | 6.9 | 29,000 |
| 1.9 | 2,450 | 3.6 | 8,460 | 5.3 | 18,600 | 7.0 | 29,650 |
| 2.0 | 2,715 | 3.7 | 8,950 | 5.4 | 19,250 | 7.5 | 32,900 |
| 2.1 | 2,985 | 3.8 | 9,460 | 5.5 | 19,900 | 8.0 | 36,150 |
| 2.2 | 3,265 | 3.9 | 9,980 | 5.6 | 20,550 | 9.0 | 42,650 |
| 2.3 | 3,545 | 4.0 | 10,520 | 5.7 | 21,200 | 10.0 | 49,150 |
| 2.4 | 3,830 | 4.1 | 11,070 | 5.8 | 21,850 | 11.0 | 55,650 |
| 2.5 | 4,120 | 4.2 | 11,640 | 5.9 | 22,500 | 12.0 | 62,150 |
| 2.6 | 4,420 | 4.3 | 12,220 | 6.0 | 23,150 | | |
| 2.7 | 4,740 | 4.4 | 12,810 | 6.1 | 23,800 | | |
| 2.8 | 5,080 | 4.5 | 13,420 | 6.2 | 24,450 | | |

RATING TABLE FOR FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN., FOR 1904 AND 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.90 | 400 | 1.90 | 2,410 | 2.80 | 5,140 | 3.70 | 8,805 |
| 1.00 | 535 | 2.00 | 2,680 | 2.90 | 5,500 | 3.80 | 9,245 |
| 1.10 | 685 | 2.10 | 2,955 | 3.00 | 5,875 | 3.90 | 9,690 |
| 1.20 | 850 | 2.20 | 3,235 | 3.10 | 6,260 | 4.00 | 10,140 |
| 1.30 | 1,030 | 2.30 | 3,525 | 3.20 | 6,660 | 4.20 | 11,050 |
| 1.40 | 1,225 | 2.40 | 3,825 | 3.30 | 7,075 | 4.40 | 11,980 |
| 1.50 | 1,435 | 2.50 | 4,135 | 3.40 | 7,500 | 4.60 | 12,920 |
| 1.60 | 1,660 | 2.60 | 4,455 | 3.50 | 7,930 | 4.80 | 13,860 |
| 1.70 | 1,900 | 2.70 | 4,790 | 3.60 | 8,365 | 5.00 | 14,800 |
| 1.80 | 2,150 | | | | | | |

NOTE.—The above table is based on thirteen discharge measurements made during 1904–1905 and one measurement made in 1903, to determine the upper part of the curve. It is well defined between gage heights 1 foot and 3 feet.

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN.

[Drainage area, 1,737 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| January | 4,120 | 2,450 | 3,030 | 1.74 | 2.01 |
| February | 26,400 | 2,450 | 8,327 | 4.79 | 4.99 |
| March | 60,850 | 4,420 | 12,877 | 7.41 | 8.54 |
| April | 62,150 | 4,420 | 11,597 | 6.68 | 7.45 |
| May | 5,440 | 2,450 | 3,382 | 1.95 | 2.25 |
| June | 14,700 | 2,985 | 6,061 | 3.49 | 3.89 |
| July | 4,740 | 1,685 | 2,780 | 1.60 | 1.84 |
| August | 2,985 | 1,200 | 2,108 | 1.21 | 1.39 |
| September | 1,440 | 735 | 1,139 | .66 | .74 |
| October | 1,685 | 735 | 975 | .56 | .65 |
| November | 2,985 | 735 | 1,250 | .72 | .80 |
| December | 1,935 | 735 | 1,045 | .60 | .69 |
| The year | 62,150 | 735 | 4,548 | 2.62 | 35.24 |
| 1904. | | | | | |
| January | 4,135 | 850 | 1,758 | 1.01 | 1.16 |
| February | 5,500 | 1,225 | 2,063 | 1.19 | 1.28 |
| March | 12,450 | 2,410 | 4,271 | 2.46 | 2.84 |
| April | 3,525 | 1,900 | 2,333 | 1.34 | 1.50 |
| May | 7,288 | 1,435 | 2,407 | 1.39 | 1.60 |
| June | 3,825 | 1,225 | 1,957 | 1.13 | 1.26 |
| July | 2,545 | 768 | 1,299 | .748 | .862 |
| August | 2,680 | 1,225 | 1,877 | 1.08 | 1.24 |
| September | 2,410 | 685 | 1,125 | .648 | .723 |
| October | 685 | 400 | 526 | .303 | .349 |
| November | 1,900 | 468 | 943 | .543 | .606 |
| December | 3,380 | 850 | 1,375 | .792 | .913 |
| The year | 12,450 | 400 | 1,828 | 1.05 | 14.33 |

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT OLDTOWN, NEAR NEWPORT, TENN.—*Continued.*

[Drainage area, 1,737 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 13,860 | 768 | 2,703 | 1.56 | 1.80 |
| February | 11,980 | 1,435 | 4,188 | 2.41 | 2.51 |
| March | 4,622 | 1,900 | 2,688 | 1.55 | 1.79 |
| April | 5,320 | 1,660 | 2,508 | 1.44 | 1.61 |
| May | 10,140 | 2,025 | 4,493 | 2.59 | 2.99 |
| June | 8,365 | 1,548 | 3,051 | 1.76 | 1.96 |
| July | 36,300 | 2,818 | 6,942 | 4.00 | 4.61 |
| August | 12,920 | 2,150 | 4,319 | 2.49 | 2.87 |
| September | 3,235 | 1,128 | 1,730 | .996 | 1.11 |
| October | 4,295 | 1,128 | 1,502 | .865 | .997 |
| November | 1,225 | 940 | 1,051 | .605 | .675 |
| December | 10,590 | 1,128 | 3,679 | 2.12 | 2.44 |
| The year | 36,300 | 768 | 3,238 | 1.86 | 25.36 |

FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, NEAR ASHEVILLE, N. C.

This station was established in September, 1895, by C. C. Babb. It is located at Bingham School Bridge crossing French Broad River at Riverside Park, about 3 miles west of Asheville, N. C. It was maintained as a regular station from 1895 to the close of 1901. Discharge measurements are made from the upstream side of the three-span bridge. The channel is straight for about 700 feet above and below the station. The current is swift. Both banks are high, wooded, and not liable to overflow. The bed of the stream is composed of bowlders, very rough, and permanent. There is but one channel at all stages, broken by two piers at ordinary stages and four piers at high stages. Bench mark No. 1 is the upper edge of the steel plate riveted to the bridge post, over the second floor beam, from the right bank, on the upstream side of the bridge. Its elevation is 20 feet above gage datum.

DISCHARGE MEASUREMENTS OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C.

| Date. | Hydrographer. | Meter Number. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1895. | | | | | | |
| Sept. 2 | C. C. Babb | 29 | 650 | 1.84 | 4.30 | 1,192 |
| Sept. 17 | do | 29 | 585 | 1.72 | 3.22 | 1,006 |
| 1896. | | | | | | |
| Apr. 18 | E. W. Myers | 21 | 538 | 1.22 | 2.90 | 659 |
| June 19 | do | 21 | 685 | 2.18 | 3.42 | 1,495 |
| Aug. 16 | do | 2154 | 543 | 2.00 | 3.25 | 1,089 |
| Sept. 19 | do | 2154 | 438 | 1.58 | 2.50 | 694 |
| 1897. | | | | | | |
| Aug. 18 | E. W. Myers | 2154 | 531 | 1.65 | 2.86 | 882 |
| Oct. 14 | do | 2154 | 469 | 1.72 | 2.84 | 808 |
| Oct. 27 | A. P. Davis | 94 | 434 | 1.69 | 2.50 | 734 |
| 1898. | | | | | | |
| Jan. 18 | E. W. Myers | 2154 | 502 | 1.82 | 2.75 | 918 |
| Sept. 8 | do | 9 | 1,089 | 3.06 | 5.45 | 3,332 |

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1899. | | | |
| Feb. 25 | | 4.30 | 2,810 |
| June 16 | | 3.03 | 2,359 |
| Sept. 30 | | 1.94 | 714 |
| Oct. 27 | | 1.95 | 815 |
| Nov. 30 | | 2.12 | 1,043 |
| 1900. | | | |
| Jan. 6 | | 2.52 | 1,368 |
| Feb. 13 | | 7.95 | 16,967 |
| Mar. 17 | | 4.20 | 4,982 |
| Apr. 22 | | 6.80 | 13,069 |
| June 6 | | 3.30 | 2,848 |
| June 15 | | 3.60 | 2,258 |
| July 4 | | 3.75 | 4,273 |
| July 6 | | 4.05 | 3,112 |
| Aug. 11 | | 3.10 | 1,294 |
| Sept. 6 | | 3.00 | 1,002 |
| Sept. 13 | | 2.82 | 710 |
| Sept. 19 | | 3.24 | 1,452 |
| Oct. 13 | | 3.00 | 997 |
| Oct. 23 | | 8.20 | 16,575 |
| Nov. 20 | | 3.20 | 1,414 |
| Dec. 14 | | 3.50 | 1,638 |
| Dec. 30 | | 3.78 | 2,135 |

Discharge Measurements of French Broad River at Bingham School Bridge, Asheville, N. C.—*Continued.*

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1901. | | | |
| Feb. 28 | R. E. Shuford | 3.60 | 2,955 |
| Mar. 27 | do | 8.97 | 19,377 |
| Apr. 16 | E. W. Myers | 4.68 | 3,308 |
| May 21 | R. E. Shuford | 12.10 | 31,100 |
| July 4 | do | 4.06 | 2,942 |
| July 31 | E. W. Myers | 3.60 | 1,769 |
| Aug. 6 | R. E. Shuford | 9.50 | 20,240 |
| Aug. 15 | do | 9.30 | 18,528 |
| Sept. 18 | E. W. Myers | 6.90 | 8,760 |
| Oct. 14 | do | 4.33 | 2,950 |
| Nov. 10 | R. E. Shuford | 3.30 | 1,857 |
| Dec. 10 | do | 3.45 | 1,996 |

Daily Gage Height, in Feet, of French Broad River at Bingham School Bridge, Asheville, N. C., for 1905.

| Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2.60 | 3.30 | 2.70 | 17 | 3.20 | 2.55 | 2.67 | 2.60 |
| 2 | | 2.60 | 2.80 | 2.70 | 18 | 3.00 | 2.55 | 2.65 | 2.60 |
| 3 | | 2.60 | 2.65 | 2.70 | 19 | 2.85 | 2.55 | 2.60 | 2.70 |
| 4 | | 2.60 | 2.60 | 2.75 | 20 | 2.85 | 2.52 | 2.65 | 3.00 |
| 5 | | 2.60 | 2.62 | 2.75 | 21 | 2.80 | 2.50 | 2.65 | 5.40 |
| 6 | | 2.60 | 2.62 | 2.63 | 22 | 2.80 | 2.50 | 2.60 | 4.40 |
| 7 | | 2.60 | 2.60 | 2.60 | 23 | 2.70 | 2.50 | 2.60 | 3.56 |
| 8 | | 2.60 | 3.28 | 2.65 | 24 | 2.72 | 2.50 | 2.60 | 3.40 |
| 9 | | 2.60 | 2.98 | 2.65 | 25 | 2.75 | 2.50 | 2.60 | 3.15 |
| 10 | | 2.60 | 2.70 | 2.75 | 26 | 2.70 | 2.52 | 2.75 | 3.20 |
| 11 | | 2.55 | 3.30 | 2.75 | 27 | 2.63 | 2.50 | 3.25 | 4.50 |
| 12 | | 2.63 | 3.02 | 2.67 | 28 | 2.60 | 2.58 | 2.85 | 3.85 |
| 13 | | 2.55 | 2.80 | 2.67 | 29 | 2.60 | 2.55 | 2.85 | 3.55 |
| 14 | | 2.55 | 2.75 | 2.65 | 30 | 2.60 | 2.58 | 2.70 | 3.70 |
| 15 | | 2.55 | 2.73 | 2.60 | 31 | | 2.70 | | 4.30 |
| 16 | | 2.55 | 2.70 | 2.60 | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1896 AND 1897.

| 1896. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.80 | 3.40 | ..... | 3.80 | 2.80 | 2.90 | 2.56 | 3.20 | 2.50 | 2.65 | 2.75 | 5.80 |
| 2 | 3.40 | 3.40 | ..... | 4.20 | 3.20 | 2.90 | 2.55 | 3.10 | 2.63 | 2.63 | 2.65 | 4.50 |
| 3 | 3.30 | 4.00 | ..... | 3.70 | 4.60 | 2.90 | 2.65 | 3.25 | 2.70 | 2.60 | 2.65 | 4.10 |
| 4 | 3.20 | 3.70 | ..... | 3.45 | 4.10 | 3.13 | 2.85 | 3.10 | 2.73 | 2.50 | 2.85 | 3.80 |
| 5 | 3.20 | 3.60 | ..... | 3.30 | 3.90 | 2.90 | 2.86 | 2.90 | 2.95 | 2.45 | 6.10 | 3.80 |
| 6 | 3.30 | 4.65 | ..... | 3.27 | 3.70 | 2.90 | 4.10 | 2.85 | 3.20 | 2.43 | 5.50 | 3.60 |
| 7 | 3.15 | 4.60 | ..... | 3.25 | 3.50 | 2.73 | 5.10 | 2.85 | 3.10 | 2.40 | 5.43 | 3.50 |
| 8 | 3.10 | 4.43 | ..... | 3.20 | 3.26 | 2.70 | 9.85 | 2.90 | 2.90 | 2.40 | 3.45 | 3.40 |
| 9 | 3.00 | 5.45 | ..... | 3.15 | 3.20 | 3.15 | 8.73 | 2.85 | 2.65 | 2.40 | 3.35 | 3.40 |
| 10 | 2.75 | 4.70 | ..... | 3.15 | 3.07 | 2.90 | 7.00 | 3.00 | 2.53 | 2.40 | 3.25 | 3.30 |
| 11 | 2.90 | 4.20 | ..... | 3.02 | 3.05 | 2.75 | 6.10 | 3.00 | 2.55 | 2.40 | 2.75 | 3.25 |
| 12 | 2.90 | 3.95 | ..... | 3.50 | 3.05 | 2.70 | 5.00 | 2.95 | 2.85 | 2.45 | 3.50 | 3.25 |
| 13 | 2.85 | 4.85 | ..... | 3.25 | 3.03 | 2.67 | 4.80 | 2.80 | 2.55 | 2.50 | 4.25 | 3.20 |
| 14 | 2.85 | 4.45 | ..... | 3.25 | 3.05 | 2.65 | 4.50 | 2.85 | 2.55 | 2.65 | 4.23 | 3.20 |
| 15 | 2.75 | 3.95 | ..... | 3.15 | 2.87 | 2.60 | 4.30 | 2.95 | 2.57 | 2.55 | 4.20 | 3.25 |
| 16 | 2.80 | 3.80 | 3.50 | 3.10 | 2.80 | 2.60 | 4.25 | 3.25 | 2.57 | 2.45 | 3.85 | 3.30 |
| 17 | 2.80 | 3.70 | 3.40 | 2.95 | 2.76 | 3.15 | 4.15 | 2.95 | 2.65 | 2.43 | 3.75 | 3.30 |
| 18 | 3.40 | 3.60 | 3.40 | 2.90 | 2.76 | 3.30 | 4.03 | 2.80 | 2.53 | 2.40 | 3.63 | 3.25 |
| 19 | 3.20 | 3.50 | 3.16 | 2.93 | 2.70 | 3.39 | 3.80 | 2.78 | 2.50 | 2.43 | 3.50 | 3.10 |
| 20 | 3.15 | 3.40 | 3.70 | 2.93 | 2.70 | 3.18 | 3.75 | 2.80 | 2.40 | 2.46 | 2.95 | 3.10 |
| 21 | 3.15 | 3.40 | 3.30 | 2.93 | 2.70 | 2.95 | 3.70 | 2.80 | 2.40 | 2.45 | 2.93 | 3.05 |
| 22 | 3.10 | 3.30 | 3.20 | 2.95 | 2.90 | 3.00 | 3.65 | 2.65 | 2.37 | 2.42 | 2.90 | 3.05 |
| 23 | 5.30 | 3.35 | 3.20 | 2.95 | 3.05 | 3.14 | 3.63 | 2.75 | 2.50 | 2.45 | 2.70 | 3.14 |
| 24 | 6.50 | 3.35 | 3.30 | 2.95 | 3.10 | 3.15 | 3.60 | 2.70 | 2.50 | 2.45 | 2.85 | 3.00 |
| 25 | 5.80 | 3.30 | 3.20 | 2.92 | 3.00 | 3.15 | 3.55 | 2.70 | 2.45 | 2.45 | 2.80 | 2.95 |
| 26 | 4.40 | 3.35 | 3.15 | 2.86 | 2.70 | 2.93 | 3.35 | 2.70 | 2.45 | 2.45 | 2.90 | 2.90 |
| 27 | 3.95 | 3.25 | 3.10 | 2.82 | 3.05 | 2.80 | 3.40 | 2.60 | 2.35 | 2.45 | 3.10 | 2.90 |
| 28 | 3.75 | 3.35 | 3.10 | 2.82 | 2.75 | 3.05 | 3.50 | 2.60 | 3.00 | 2.47 | 4.05 | 2.87 |
| 29 | 3.60 | 3.30 | 3.50 | 2.82 | 2.75 | 2.75 | 3.40 | 2.50 | 2.70 | 2.50 | 4.95 | 2.85 |
| 30 | 3.40 | ..... | 3.25 | 2.80 | 2.73 | 2.63 | 3.35 | 2.50 | 2.67 | 2.50 | 6.20 | 2.83 |
| 31 | 3.40 | ..... | 3.30 | ..... | 2.70 | ..... | 3.25 | 2.50 | ..... | 2.45 | ..... | 2.83 |
| 1897. | | | | | | | | | | | | |
| 1 | 2.80 | 3.60 | 3.90 | 4.25 | 7.10 | 3.30 | 3.30 | 2.75 | 2.65 | 2.30 | 2.90 | 2.85 |
| 2 | 2.75 | 3.80 | 3.80 | 4.20 | 7.00 | 3.25 | 3.15 | 2.80 | 2.63 | 2.30 | 3.85 | 2.85 |
| 3 | 2.70 | 4.60 | 3.80 | 4.15 | 3.90 | 3.90 | 3.05 | 2.85 | 2.60 | 2.30 | 3.83 | 2.90 |
| 4 | 2.90 | 4.90 | 3.80 | 5.30 | 5.70 | 3.95 | 3.10 | 2.95 | 2.60 | 2.27 | 3.77 | 3.00 |
| 5 | 3.25 | 4.90 | 3.70 | 7.60 | 4.50 | 3.85 | 3.15 | 2.95 | 2.60 | 2.27 | 2.95 | 3.00 |
| 6 | 3.25 | 7.90 | 7.00 | 7.30 | 4.30 | 3.40 | 3.25 | 3.10 | 2.55 | 2.25 | 2.85 | 2.90 |
| 7 | 2.95 | 7.40 | 7.25 | 6.90 | 4.00 | 3.30 | 3.35 | 4.00 | 2.55 | 2.25 | 2.65 | 2.83 |
| 8 | 2.93 | 6.40 | 5.50 | 6.50 | 3.90 | 4.50 | 3.37 | 4.00 | 2.53 | 2.23 | 2.55 | 2.77 |
| 9 | 2.93 | 4.85 | 5.00 | 5.40 | 3.85 | 3.80 | 3.37 | 3.05 | 2.45 | 2.23 | 2.53 | 2.65 |
| 10 | 2.87 | 4.55 | 5.10 | 5.35 | 3.80 | 3.65 | 3.25 | 3.03 | 2.40 | 2.23 | 2.50 | 2.63 |
| 11 | 2.85 | 4.60 | 5.20 | 4.60 | 3.60 | 3.40 | 3.60 | 3.00 | 2.37 | 3.35 | 2.47 | 2.60 |
| 12 | 2.85 | 4.70 | 6.20 | 4.55 | 3.45 | 3.30 | 3.40 | 2.80 | 2.37 | 3.30 | 2.46 | 2.60 |
| 13 | 2.87 | 4.60 | 6.43 | 4.40 | 4.00 | 3.20 | 3.20 | 2.73 | 2.35 | 3.20 | 2.45 | 2.55 |
| 14 | 2.90 | 4.55 | 7.00 | 4.60 | 4.15 | 3.15 | 3.25 | 2.70 | 2.35 | 2.83 | 2.45 | 2.45 |
| 15 | 2.85 | 4.35 | 5.90 | 4.60 | 4.00 | 3.05 | 3.30 | 2.70 | 2.40 | 2.75 | 2.45 | 2.45 |
| 16 | 2.83 | 4.15 | 6.40 | 4.50 | 3.70 | 3.30 | 3.30 | 2.80 | 2.40 | 2.65 | 2.45 | 3.15 |
| 17 | 2.95 | 3.95 | 5.90 | 4.35 | 3.65 | 3.40 | 3.40 | 2.85 | 2.35 | 2.63 | 2.43 | 3.15 |
| 18 | 3.35 | 3.90 | 5.30 | 4.15 | 3.65 | 3.55 | 3.35 | 2.87 | 2.33 | 2.45 | 2.43 | 3.10 |
| 19 | 3.15 | 3.85 | 5.45 | 4.10 | 3.55 | 3.60 | 3.35 | 2.85 | 2.37 | 3.25 | 2.40 | 2.95 |
| 20 | 3.50 | 3.75 | 5.85 | 4.05 | 3.53 | 3.35 | 3.25 | 2.92 | 2.35 | 3.23 | 2.37 | 3.00 |
| 21 | 4.45 | 4.15 | 5.50 | 4.00 | 3.50 | 3.35 | 3.40 | 2.90 | 2.33 | 2.85 | 2.27 | 3.15 |
| 22 | 4.40 | 3.90 | 4.90 | 3.90 | 3.50 | 3.25 | 3.55 | 2.90 | 2.40 | 2.75 | 2.35 | 3.20 |
| 23 | 3.65 | 6.85 | 4.75 | 3.85 | 3.50 | 3.40 | 3.40 | 2.85 | 2.50 | 2.67 | 2.33 | 3.25 |
| 24 | 3.55 | 6.05 | 4.65 | 3.85 | 3.50 | 3.55 | 3.35 | 2.83 | 2.45 | 2.65 | 2.35 | 3.20 |
| 25 | 3.45 | 4.86 | 4.55 | 3.75 | 3.45 | 3.40 | 3.30 | 2.70 | 2.43 | 2.63 | 2.40 | 3.05 |
| 26 | 3.35 | 4.35 | 4.45 | 3.70 | 3.35 | 3.35 | 3.15 | 2.70 | 2.43 | 2.50 | 2.60 | 3.25 |
| 27 | 3.35 | 4.20 | 4.45 | 3.70 | 3.37 | 3.30 | 3.20 | 2.70 | 2.40 | 2.50 | 2.90 | 3.40 |
| 28 | 3.45 | 4.15 | 4.35 | 3.67 | 3.27 | 3.50 | 3.10 | 2.65 | 2.37 | 2.47 | 2.85 | 3.65 |
| 29 | 3.43 | ..... | 4.10 | 3.65 | 3.25 | 3.65 | 3.05 | 2.50 | 2.35 | 2.45 | 2.83 | 3.57 |
| 30 | 3.33 | ..... | 4.00 | 5.40 | 3.35 | 3.45 | 3.00 | 2.55 | 2.33 | 2.45 | 2.90 | 3.50 |
| 31 | 3.45 | ..... | 4.10 | ..... | 3.35 | ..... | 2.75 | 2.57 | ..... | 2.45 | ..... | 3.40 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1898 AND 1899.

| 1898. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 3.25 | 3.52 | 2.77 | 4.60 | 3.30 | 2.70 | 2.55 | 3.70 | 3.60 | 3.45 | 3.50 | 3.60 |
| 2 | 3.25 | 3.47 | 2.75 | 4.05 | 3.30 | 2.67 | 2.35 | 3.90 | 3.50 | 3.33 | 3.60 | 3.55 |
| 3 | 3.15 | 3.45 | 2.73 | 4.05 | 3.27 | 2.63 | 2.65 | 4.10 | 3.45 | 5.25 | 3.50 | 3.30 |
| 4 | 3.03 | 3.35 | 2.70 | 4.10 | 3.25 | 2.63 | 2.63 | 8.55 | 6.33 | 8.10 | 3.43 | 3.25 |
| 5 | 2.87 | 3.15 | 2.70 | 4.20 | 3.17 | 2.60 | 2.60 | 7.23 | 6.00 | 7.50 | 3.40 | 3.30 |
| 6 | 2.93 | 3.10 | 2.70 | 4.23 | 3.10 | 2.60 | 2.60 | 6.40 | 5.75 | 6.75 | 3.35 | 3.35 |
| 7 | 2.90 | 3.05 | 2.65 | 4.10 | 3.03 | 2.55 | 2.55 | 5.77 | 5.90 | 7.03 | 3.03 | 3.40 |
| 8 | 2.90 | 3.00 | 2.63 | 3.30 | 3.03 | 2.55 | 2.55 | 5.60 | 5.00 | 6.05 | 3.25 | 3.35 |
| 9 | 2.80 | 3.00 | 2.63 | 3.40 | 3.00 | 2.55 | 2.55 | 5.00 | 4.65 | 6.00 | 3.02 | 3.25 |
| 10 | 2.80 | 2.90 | 2.60 | 3.40 | 3.00 | 2.53 | 3.40 | 4.40 | 4.30 | 5.60 | 3.15 | 3.20 |
| 11 | 2.90 | 2.85 | 2.60 | 3.40 | 2.90 | 2.50 | 2.85 | 6.60 | 4.25 | 5.40 | 3.01 | 3.15 |
| 12 | 3.00 | 2.80 | 2.60 | 3.37 | 4.00 | 2.50 | 2.80 | 7.20 | 3.95 | 4.70 | 3.01 | 3.13 |
| 13 | 3.00 | 2.85 | 2.63 | 3.25 | 4.00 | 2.60 | 4.95 | 6.95 | 3.90 | 3.80 | 3.10 | 3.10 |
| 14 | 2.93 | 2.77 | 2.60 | 3.27 | 3.40 | 2.65 | 7.00 | 6.50 | 3.80 | 3.80 | 3.50 | 3.00 |
| 15 | 2.90 | 2.73 | 2.60 | 3.25 | 3.30 | 2.70 | 6.65 | 6.00 | 3.75 | 3.80 | 3.10 | 2.97 |
| 16 | 2.85 | 2.75 | 2.90 | 3.25 | 3.05 | 2.90 | 6.50 | 5.00 | 3.65 | 3.60 | 3.15 | 2.95 |
| 17 | 2.85 | 2.75 | 2.75 | 3.23 | 3.00 | 3.00 | 6.50 | 4.40 | 3.57 | 3.80 | 3.20 | 2.90 |
| 18 | 2.77 | 3.00 | 2.73 | 3.20 | 2.95 | 3.35 | 6.00 | 4.40 | 3.55 | 6.30 | 3.30 | 2.93 |
| 19 | 3.20 | 3.15 | 2.70 | 3.17 | 2.95 | 4.50 | 5.00 | 4.40 | 3.50 | 6.20 | 3.20 | 3.10 |
| 20 | 3.30 | 3.10 | 2.70 | 3.15 | 2.93 | 4.50 | 3.85 | 4.37 | 3.45 | 6.10 | 3.20 | 3.25 |
| 21 | 4.20 | 3.07 | 2.85 | 2.97 | 2.90 | 4.00 | 4.10 | 4.35 | 3.40 | 6.10 | 3.25 | 3.30 |
| 22 | 4.30 | 3.05 | 2.85 | 2.95 | 2.90 | 3.90 | 5.30 | 4.30 | 3.40 | 7.00 | 3.27 | 4.80 |
| 23 | 4.30 | 2.95 | 2.83 | 3.95 | 3.10 | 3.55 | 5.20 | 4.23 | 7.30 | 6.50 | 3.23 | 5.50 |
| 24 | 4.40 | 2.90 | 2.80 | 3.90 | 3.05 | 2.70 | 4.90 | 4.15 | 6.60 | 5.00 | 3.30 | 5.00 |
| 25 | 4.50 | 2.80 | 2.77 | 3.90 | 2.90 | 2.55 | 4.50 | 4.03 | 5.70 | 4.10 | 3.25 | 4.90 |
| 26 | 5.30 | 2.80 | 2.73 | 4.27 | 2.80 | 2.50 | 4.20 | 4.00 | 4.90 | 4.00 | 3.25 | 4.50 |
| 27 | 4.00 | 2.83 | 2.71 | 4.25 | 2.70 | 2.60 | 4.00 | 3.90 | 3.85 | 4.00 | 3.20 | 4.00 |
| 28 | 3.75 | 2.80 | 2.70 | 4.20 | 2.75 | 3.20 | 3.80 | 3.80 | 3.80 | 3.35 | 3.30 | 5.50 |
| 29 | 3.65 | ..... | 5.00 | 3.70 | 2.75 | 3.25 | 3.70 | 3.73 | 3.70 | 3.30 | 3.40 | 5.20 |
| 30 | 3.60 | ..... | 6.00 | 3.30 | 2.75 | 3.12 | 3.60 | 3.70 | 3.50 | 3.33 | 3.53 | 5.10 |
| 31 | 3.55 | ..... | 5.70 | ..... | 2.73 | ..... | 3.53 | 3.70 | ..... | 3.30 | ..... | 4.70 |
| 1899. | | | | | | | | | | | | |
| 1 | 4.60 | 3.60 | 6.80 | 5.25 | 4.20 | 2.90 | 2.40 | 2.45 | 3.10 | 1.80 | 2.30 | 2.23 |
| 2 | 4.20 | 3.55 | 6.40 | 5.20 | 4.15 | 2.80 | 2.43 | 2.30 | 3.05 | 1.83 | 2.30 | 2.15 |
| 3 | 3.90 | 4.65 | 5.60 | 5.80 | 4.17 | 2.73 | 2.50 | 2.23 | 3.00 | 1.85 | 2.20 | 2.15 |
| 4 | 3.80 | 8.20 | 4.40 | 5.50 | 4.15 | 2.70 | 2.45 | 2.20 | 2.80 | 1.90 | 2.15 | 2.20 |
| 5 | 3.90 | 8.00 | 4.20 | 5.10 | 4.20 | 2.73 | 2.45 | 2.10 | 2.60 | 1.90 | 2.13 | 2.17 |
| 6 | 3.95 | 7.03 | 4.30 | 5.40 | 4.30 | 2.65 | 2.47 | 2.00 | 2.30 | 2.00 | 2.10 | 2.15 |
| 7 | 4.20 | 7.00 | 4.35 | 5.85 | 4.40 | 2.53 | 2.45 | 2.03 | 2.10 | 2.05 | 2.07 | 2.13 |
| 8 | 4.70 | 6.50 | 4.35 | 5.80 | 4.30 | 2.50 | 2.40 | 2.50 | 3.50 | 2.65 | 2.05 | 2.11 |
| 9 | 4.65 | 5.50 | 4.30 | 5.70 | 4.30 | 2.57 | 2.40 | 2.70 | 2.60 | 2.40 | 2.03 | 2.05 |
| 10 | 4.50 | 5.00 | 4.25 | 5.80 | 4.20 | 2.63 | 2.37 | 3.00 | 2.50 | 2.30 | 2.00 | 2.15 |
| 11 | 4.40 | 4.80 | 4.30 | 5.90 | 4.35 | 2.70 | 2.35 | 3.50 | 2.35 | 2.25 | 2.00 | 3.40 |
| 12 | 4.20 | 4.70 | 4.30 | 6.45 | 4.60 | 2.73 | 2.35 | 2.45 | 2.20 | 2.20 | 2.20 | 6.35 |
| 13 | 4.10 | 4.50 | 5.00 | 6.45 | 4.55 | 2.65 | 2.30 | 2.20 | 2.15 | 2.13 | 1.97 | 6.13 |
| 14 | 4.03 | 4.40 | 8.50 | 5.60 | 4.40 | 2.53 | 2.23 | 2.25 | 2.10 | 2.05 | 1.95 | 5.20 |
| 15 | 4.40 | 4.30 | 11.50 | 4.50 | 4.30 | 2.50 | 2.20 | 2.27 | 2.10 | 2.65 | 1.93 | 3.70 |
| 16 | 4.40 | 5.60 | 9.00 | 4.80 | 4.20 | 2.57 | 2.15 | 2.23 | 2.10 | 2.40 | 1.95 | 2.77 |
| 17 | 4.35 | 5.40 | 7.60 | 4.60 | 4.00 | 2.63 | 2.40 | 2.10 | 2.10 | 2.30 | 2.00 | 2.85 |
| 18 | 4.30 | 5.25 | 5.50 | 4.50 | 3.80 | 2.83 | 2.45 | 2.05 | 2.15 | 2.25 | 2.00 | 2.75 |
| 19 | 4.25 | 5.20 | 11.25 | 4.45 | 3.70 | 2.80 | 2.37 | 2.03 | 2.23 | 2.20 | 2.13 | 2.70 |
| 20 | 4.10 | 5.00 | 10.00 | 4.35 | 3.60 | 2.80 | 2.27 | 2.03 | 2.20 | 2.10 | 2.10 | 2.67 |
| 21 | 3.70 | 4.15 | 7.50 | 4.30 | 4.40 | 2.70 | 2.23 | 2.00 | 2.10 | 2.05 | 2.07 | 2.60 |
| 22 | 3.65 | 4.30 | 6.70 | 4.20 | 4.30 | 2.65 | 2.15 | 2.00 | 1.90 | 2.07 | 2.05 | 2.55 |
| 23 | 3.60 | 4.50 | 6.05 | 4.40 | 4.20 | 2.60 | 2.20 | 1.97 | 1.85 | 2.10 | 2.03 | 3.40 |
| 24 | 3.70 | 4.40 | 5.70 | 4.50 | 4.00 | 2.55 | 2.20 | 1.95 | 1.83 | 2.10 | 2.00 | 3.93 |
| 25 | 4.05 | 4.30 | 5.40 | 4.60 | 3.80 | 2.47 | 2.15 | 1.93 | 1.90 | 2.07 | 2.00 | 3.80 |
| 26 | 4.03 | 4.40 | 5.25 | 4.70 | 3.70 | 2.65 | 3.00 | 2.00 | 2.15 | 2.05 | 2.15 | 3.53 |
| 27 | 4.00 | 8.80 | 5.60 | 4.50 | 3.60 | 2.85 | 3.15 | 2.10 | 2.10 | 2.03 | 2.30 | 2.10 |
| 28 | 3.80 | 7.75 | 5.25 | 4.40 | 2.85 | 2.95 | 3.00 | 2.50 | 2.15 | 2.00 | 2.40 | 2.70 |
| 29 | 3.75 | ..... | 5.33 | 4.30 | 2.80 | 2.80 | 2.80 | 2.60 | 1.85 | 2.05 | 2.37 | 2.65 |
| 30 | 3.70 | ..... | 5.40 | 4.25 | 2.75 | 2.50 | 2.50 | 2.80 | 1.80 | 2.13 | 2.35 | 2.60 |
| 31 | 3.65 | ..... | 5.35 | ..... | 3.00 | ..... | 2.43 | 3.85 | ..... | 2.25 | ..... | 2.57 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1900 AND 1901.

| 1900. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.67 | 2.83 | 7.40 | 3.40 | 4.53 | 3.05 | 4.05 | 3.65 | 3.33 | 2.95 | 3.50 | 3.90 |
| 2 | 2.35 | 2.65 | 6.70 | 3.33 | 4.47 | 3.10 | 4.10 | 3.55 | 3.20 | 2.93 | 4.00 | 3.73 |
| 3 | 2.25 | 2.63 | 6.10 | 3.40 | 3.45 | 3.03 | 4.15 | 3.50 | 3.15 | 2.97 | 4.13 | 3.64 |
| 4 | 2.30 | 2.80 | 5.80 | 3.73 | 3.35 | 3.05 | 4.20 | 3.40 | 3.10 | 3.10 | 4.25 | 4.98 |
| 5 | 2.35 | 3.10 | 4.70 | 3.60 | 3.27 | 3.55 | 4.17 | 3.35 | 3.07 | 3.27 | 4.13 | 4.57 |
| 6 | 2.47 | 3.20 | 3.75 | 3.20 | 3.20 | 3.80 | 4.20 | 3.35 | 3.10 | 3.20 | 4.00 | 4.35 |
| 7 | 2.90 | 3.50 | 3.80 | 3.15 | 3.17 | 4.20 | 4.05 | 3.27 | 3.05 | 3.10 | 3.85 | 4.07 |
| 8 | 2.60 | 3.60 | 4.90 | 3.10 | 3.15 | 4.05 | 4.10 | 3.23 | 3.03 | 3.10 | 3.58 | 3.95 |
| 9 | 2.45 | 3.70 | 4.70 | 3.07 | 3.20 | 4.00 | 3.85 | 3.20 | 3.10 | 3.00 | 3.40 | 3.70 |
| 10 | 2.33 | 3.75 | 4.30 | 3.05 | 3.15 | 3.80 | 3.65 | 3.17 | 3.05 | 2.95 | 3.45 | 3.67 |
| 11 | 2.80 | 3.00 | 4.10 | 3.20 | 3.10 | 3.70 | 3.67 | 3.15 | 3.00 | 2.85 | 3.47 | 3.55 |
| 12 | 4.30 | 3.80 | 3.80 | 3.40 | 3.00 | 3.40 | 3.63 | 3.13 | 2.85 | 3.00 | 3.50 | 3.50 |
| 13 | 4.25 | 7.95 | 3.60 | 3.30 | 3.00 | 3.45 | 4.80 | 3.25 | 2.80 | 3.13 | 3.47 | 3.47 |
| 14 | 3.93 | 7.05 | 3.45 | 3.25 | 2.90 | 3.30 | 4.00 | 3.30 | 3.40 | 3.10 | 3.38 | 3.47 |
| 15 | 3.80 | 6.55 | 3.37 | 3.00 | 2.85 | 3.20 | 4.03 | 3.17 | 4.65 | 2.90 | 3.35 | 3.49 |
| 16 | 4.45 | 5.87 | 3.40 | 3.95 | 2.87 | 7.23 | 3.80 | 3.20 | 5.27 | 2.80 | 3.32 | 3.50 |
| 17 | 4.10 | 4.95 | 3.50 | 4.30 | 2.85 | 6.10 | 3.70 | 3.35 | 3.90 | 2.85 | 3.30 | 3.47 |
| 18 | 3.80 | 4.30 | 3.70 | 5.60 | 2.83 | 5.70 | 3.65 | 3.45 | 3.80 | 2.83 | 3.31 | 3.45 |
| 19 | 3.60 | 3.47 | 3.75 | 5.75 | 2.80 | 4.75 | 3.63 | 3.40 | 3.50 | 2.80 | 3.35 | 3.44 |
| 20 | 4.20 | 3.40 | 4.40 | 5.80 | 2.77 | 4.70 | 3.60 | 3.30 | 3.20 | 2.75 | 3.37 | 3.70 |
| 21 | 4.10 | 3.80 | 4.20 | 6.35 | 2.65 | 4.67 | 3.57 | 3.20 | 3.15 | 2.70 | 3.40 | 5.11 |
| 22 | 4.00 | 4.90 | 4.10 | 7.40 | 2.47 | 4.80 | 3.55 | 3.13 | 3.13 | 3.80 | 3.37 | 4.48 |
| 23 | 3.80 | 4.70 | 3.70 | 5.10 | 2.30 | 4.93 | 3.65 | 3.15 | 3.10 | 8.50 | 3.33 | 4.40 |
| 24 | 3.75 | 4.60 | 3.60 | 4.60 | 2.60 | 6.60 | 3.70 | 3.20 | 3.05 | 7.45 | 3.28 | 4.35 |
| 25 | 3.65 | 4.40 | 3.40 | 4.55 | 3.05 | 5.95 | 3.75 | 3.40 | 3.20 | 6.20 | 4.30 | 4.20 |
| 26 | 3.45 | 3.50 | 4.30 | 4.43 | 3.10 | 5.80 | 3.87 | 3.35 | 2.70 | 4.80 | 6.45 | 4.12 |
| 27 | 3.30 | 3.60 | 4.00 | 4.20 | 3.00 | 5.70 | 4.45 | 3.25 | 2.75 | 4.15 | 5.27 | 3.85 |
| 28 | 3.20 | 3.80 | 3.85 | 3.90 | 2.80 | 4.65 | 3.85 | 3.20 | 2.80 | 4.00 | 4.70 | 3.80 |
| 29 | 2.95 | ------- | 3.80 | 3.70 | 2.73 | 4.10 | 3.55 | 3.13 | 2.90 | 3.70 | 4.35 | 3.85 |
| 30 | 2.90 | ------- | 3.60 | 3.60 | 2.67 | 4.00 | 3.93 | 3.20 | 2.90 | 3.63 | 4.05 | 3.70 |
| 31 | 2.85 | ------- | 3.53 | ------- | 2.80 | ------- | 3.80 | 3.30 | ------- | 3.60 | ------ | 4.45 |
| 1901. | | | | | | | | | | | | |
| 1 | 4.10 | 3.65 | 3.43 | 4.50 | 4.45 | 4.80 | 4.63 | 3.55 | 7.00 | 4.10 | 3.56 | 3.28 |
| 2 | 3.90 | 3.60 | 3.40 | 6.85 | 4.40 | 4.55 | (*) | 3.47 | 6.40 | 5.80 | 3.56 | 3.28 |
| 3 | 3.85 | 3.65 | 3.40 | 8.15 | 4.30 | 4.45 | ------- | 3.41 | 5.90 | 5.00 | 3.54 | 3.88 |
| 4 | 3.77 | 4.75 | 3.40 | 7.20 | 4.28 | 4.40 | ------- | 3.60 | 5.61 | 4.61 | 3.53 | 3.98 |
| 5 | 3.73 | 3.95 | 3.38 | 5.65 | 4.23 | 4.57 | ------- | 3.61 | 5.48 | 4.30 | 3.51 | 3.58 |
| 6 | 3.60 | 3.87 | 3.38 | 5.30 | 4.18 | 4.65 | ------- | 8.75 | 5.20 | 4.10 | 3.49 | 3.52 |
| 7 | 3.61 | 3.80 | 3.38 | 5.00 | 4.02 | 5.27 | ------- | 8.20 | 5.02 | 4.05 | 3.48 | 3.47 |
| 8 | 3.59 | 3.85 | 3.38 | 4.75 | 4.01 | 4.87 | ------- | 6.90 | 4.97 | 4.00 | 3.45 | 3.38 |
| 9 | 3.55 | 3.95 | 3.37 | 4.60 | 4.15 | 4.42 | ------- | 4.15 | 4.98 | 3.95 | 3.42 | 3.48 |
| 10 | 3.60 | 3.90 | 3.62 | 4.85 | 4.20 | 4.33 | ------- | 4.23 | 4.93 | 3.94 | 3.40 | 3.48 |
| 11 | 4.49 | 3.85 | 5.20 | 4.60 | 4.17 | 4.25 | ------- | 4.33 | 4.98 | 3.94 | 3.39 | 4.18 |
| 12 | 7.40 | 3.85 | 4.00 | 4.35 | 4.15 | 4.22 | ------- | 4.60 | 4.80 | 3.90 | 3.38 | 3.83 |
| 13 | 6.33 | 3.82 | 3.75 | 4.25 | 4.10 | 4.20 | ------- | 5.70 | 5.10 | 4.73 | 3.38 | 3.73 |
| 14 | 5.30 | 3.75 | 3.60 | 5.55 | 4.05 | 6.30 | ------- | 8.27 | 4.85 | 4.20 | 3.28 | 5.48 |
| 15 | 4.40 | 3.68 | 3.53 | 4.92 | 3.95 | 6.81 | ------- | 9.01 | 4.60 | 3.93 | 3.30 | 9.98 |
| 16 | 4.25 | 3.67 | 3.52 | 4.55 | 3.93 | 6.60 | ------- | 8.77 | 4.42 | 3.88 | 3.31 | 9.08 |
| 17 | 4.10 | 3.64 | 3.49 | 4.50 | 3.91 | 5.75 | ------- | 9.40 | 6.75 | 3.73 | 3.29 | 7.28 |
| 18 | 4.05 | 3.62 | 3.46 | 4.40 | 4.21 | 5.38 | ------- | 8.60 | 6.80 | 3.67 | 3.30 | 5.08 |
| 19 | 4.00 | 3.60 | 3.44 | 7.40 | 4.67 | 4.90 | ------- | 8.00 | 5.37 | 3.63 | 3.29 | 4.68 |
| 20 | 3.92 | 3.58 | 3.42 | 7.95 | 5.58 | 5.15 | ------- | 7.70 | 4.95 | 3.62 | 3.29 | 4.39 |
| 21 | 3.87 | 3.55 | 4.60 | 7.40 | 8.65 | 5.67 | ------- | 7.28 | 4.62 | 3.60 | 3.28 | 4.37 |
| 22 | 3.83 | 3.53 | 4.15 | 6.95 | 10.40 | 5.30 | ------- | 7.08 | 4.45 | 3.59 | 3.28 | 4.38 |
| 23 | 3.80 | 3.50 | 3.80 | 6.65 | 6.35 | 4.85 | ------- | 7.48 | 4.37 | 3.58 | 3.39 | 4.23 |
| 24 | 3.80 | 3.50 | 3.70 | 6.25 | 5.55 | 4.75 | ------- | 7.55 | 4.30 | 3.58 | 3.35 | 4.13 |
| 25 | 3.77 | 3.50 | 5.45 | 5.95 | 5.83 | 4.70 | ------- | 6.80 | 4.20 | 3.58 | 3.37 | 4.13 |
| 26 | 3.68 | 3.50 | 9.92 | 5.00 | 5.73 | 4.77 | ------- | 6.35 | 4.10 | 3.58 | 3.36 | 4.15 |
| 27 | 3.67 | 3.48 | 8.43 | 4.88 | 5.57 | 4.53 | ------- | 6.25 | 4.05 | 3.57 | 3.34 | 4.18 |
| 28 | 3.65 | 3.45 | 7.35 | 4.65 | 5.30 | 4.67 | ------- | 6.77 | 4.00 | 3.57 | 3.32 | 4.58 |
| 29 | 3.54 | ------- | 5.27 | 4.58 | 5.17 | 4.75 | ------- | 8.57 | 4.65 | 3.56 | 3.30 | 10.93 |
| 30 | 3.70 | ------- | 5.00 | 4.50 | 4.97 | 4.70 | ------- | 8.48 | 4.28 | 3.56 | 3.29 | 9.48 |
| 31 | 3.73 | ------- | 4.75 | ------- | 4.85 | ------- | 3.60 | 7.40 | ------- | 3.56 | ------ | 9.13 |

*Wire broken.

RATING TABLE FOR FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1895–1898.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.0 | 620 | 3.6 | 1,530 | 5.2 | 3,130 | 6.8 | 4,730 |
| 2.1 | 633 | 3.7 | 1,630 | 5.3 | 3,230 | 6.9 | 4,830 |
| 2.2 | 645 | 3.8 | 1,730 | 5.4 | 3,330 | 7.0 | 4,930 |
| 2.3 | 665 | 3.9 | 1,830 | 5.5 | 3,430 | 7.1 | 5,030 |
| 2.4 | 685 | 4.0 | 1,930 | 5.6 | 3,530 | 7.2 | 5,130 |
| 2.5 | 715 | 4.1 | 2,030 | 5.7 | 3,630 | 7.3 | 5,230 |
| 2.6 | 745 | 4.2 | 2,130 | 5.8 | 3,730 | 7.4 | 5,330 |
| 2.7 | 782 | 4.3 | 2,230 | 5.9 | 3,830 | 7.5 | 5,430 |
| 2.8 | 820 | 4.4 | 2,330 | 6.0 | 3,930 | 7.6 | 5,530 |
| 2.9 | 875 | 4.5 | 2,430 | 6.1 | 4,030 | 7.7 | 5,630 |
| 3.0 | 930 | 4.6 | 2,530 | 6.2 | 4,130 | 7.8 | 5,730 |
| 3.1 | 1,030 | 4.7 | 2,630 | 6.3 | 4,230 | 7.9 | 5,830 |
| 3.2 | 1,130 | 4.8 | 2,730 | 6.4 | 4,330 | 8.0 | 5,930 |
| 3.3 | 1,230 | 4.9 | 2,830 | 6.5 | 4,430 | | |
| 3.4 | 1,330 | 5.0 | 2,930 | 6.6 | 4,530 | | |
| 3.5 | 1,430 | 5.1 | 3,030 | 6.7 | 4,630 | | |

RATING TABLE FOR FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1899.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 820 | 3.4 | 2,380 | 4.8 | 5,350 | 8.0 | 17,420 |
| 2.2 | 990 | 3.6 | 2,660 | 5.0 | 6,020 | 8.5 | 19,320 |
| 2.4 | 1,180 | 3.8 | 2,950 | 5.5 | 7,920 | 9.0 | 21,220 |
| 2.6 | 1,400 | 4.0 | 3,290 | 6.0 | 9,820 | 9.5 | 23,120 |
| 2.8 | 1,620 | 4.2 | 3,710 | 6.5 | 11,720 | 10.0 | 25,020 |
| 3.0 | 1,860 | 4.4 | 4,210 | 7.0 | 13,620 | 10.5 | 26,920 |
| 3.2 | 2,120 | 4.6 | 4,760 | 7.5 | 15,520 | 11.0 | 28,820 |

RATING TABLE FOR FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1900.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 800 | 3.2 | 1,880 | 4.4 | 4,210 | 6.5 | 11,250 |
| 2.2 | 890 | 3.4 | 2,190 | 4.6 | 4,760 | 7.0 | 13,000 |
| 2.4 | 1,020 | 3.6 | 2,530 | 4.8 | 5,350 | 7.5 | 14,750 |
| 2.6 | 1,190 | 3.8 | 2,900 | 5.0 | 6,000 | 8.0 | 16,500 |
| 2.8 | 1,380 | 4.0 | 3,290 | 5.5 | 7,750 | 8.5 | 18,250 |
| 3.0 | 1,610 | 4.2 | 3,710 | 6.0 | 9,500 | 9.0 | 20,000 |

RATING TABLE FOR FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C., FOR 1901.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.0 | 800 | 3.6 | 2,230 | 5.2 | 5,275 | 8.0 | 15,100 |
| 2.2 | 890 | 3.8 | 2,485 | 5.4 | 5,905 | 9.0 | 18,800 |
| 2.4 | 1,020 | 4.0 | 2,760 | 5.6 | 6,600 | 10.0 | 22,600 |
| 2.6 | 1,190 | 4.2 | 3,060 | 5.8 | 7,300 | 11.0 | 26,550 |
| 2.8 | 1,390 | 4.4 | 3,410 | 6.0 | 8,000 | 12.0 | 30,670 |
| 3.0 | 1,590 | 4.6 | 3,800 | 6.5 | 9,750 | | |
| 3.2 | 1,790 | 4.8 | 4,250 | 7.0 | 11,500 | | |
| 3.4 | 2,000 | 5.0 | 4,740 | 7.5 | 13,300 | | |

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C.

[Drainage area, 987 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1895. | | | | | | |
| September 17-30 | 1,130 | 745 | 823 | 22,854 | 0.83 | 0.43 |
| October | 780 | 710 | 732 | 45,009 | .74 | .85 |
| November | 1,230 | 745 | 844 | 50,221 | .85 | .94 |
| December | 3,330 | 745 | 1,154 | 70,956 | 1.17 | 1.35 |
| | | | | | 0.89 | 3.57 |
| 1896. | | | | | | |
| January | 4,430 | 800 | 1,439 | 88,481 | 1.46 | 1.68 |
| February | 3,380 | 1,180 | 1,733 | 99,684 | 1.76 | 1.90 |
| March | 1,630 | 1,030 | 1,227 | 38,944 | 1.24 | .74 |
| April | 2,130 | 820 | 1,092 | 64,978 | 1.11 | 1.24 |
| May | 2,530 | 780 | 1,063 | 65,362 | 1.08 | 1.25 |
| June | 1,330 | 745 | 922 | 54,863 | 1.93 | 1.03 |
| July | 7,780 | 727 | 2,191 | 134,719 | 2.22 | 2.56 |
| August | 1,180 | 710 | 866 | 53,248 | .88 | 1.01 |
| September | 1,130 | 672 | 772 | 45,937 | .78 | .87 |
| October | 762 | 685 | 705 | 43,348 | .71 | .82 |
| November | 4,130 | 762 | 1,634 | 97,230 | 1.66 | 1.85 |
| December | 3,730 | 845 | 1,281 | 78,765 | 1.30 | 1.50 |
| The year | 7,780 | 672 | 1,244 | 865,759 | 1.26 | 16.45 |
| 1897. | | | | | | |
| January | 2,380 | 780 | 1,164 | 71,570 | 1.18 | 1.36 |
| February | 5,830 | 1,530 | 2,709 | 145,450 | 2.74 | 2.85 |
| March | 5,180 | 1,630 | 3,036 | 186,680 | 3.08 | 3.56 |
| April | 5,530 | 1,580 | 2,607 | 155,130 | 2.64 | 2.04 |
| May | 5,030 | 1,180 | 1,920 | 118,056 | 1.95 | 2.25 |
| June | 2,430 | 980 | 1,410 | 83,900 | 1.43 | 1.60 |
| July | 1,530 | 800 | 1,187 | 72,985 | 1.20 | 1.38 |
| August | 1,930 | 710 | 908 | 55,830 | .92 | 1.06 |
| September | 762 | 672 | 698 | 41,535 | .71 | .79 |
| October | 1,280 | 652 | 792 | 48,696 | .80 | .92 |
| November | 1,780 | 652 | 841 | 50,040 | .85 | .94 |
| December | 1,580 | 697 | 950 | 58,412 | .96 | 1.10 |
| The year | 5,830 | 652 | 1,518 | 1,088,284 | 1.54 | 20.75 |
| 1898. | | | | | | |
| January | 3,230 | 801 | 1,345 | 82,701 | 1.36 | 1.57 |
| February | 1,430 | 801 | 968 | 53,760 | .98 | 1.02 |
| March | 3,930 | 745 | 1,051 | 64,624 | 1.07 | 1.23 |
| April | 2,530 | 903 | 1,575 | 93,719 | 1.60 | 1.79 |
| May | 1,930 | 782 | 1,036 | 63,702 | 1.05 | 1.21 |
| June | 2,430 | 715 | 1,020 | 60,694 | 1.03 | 1.15 |
| July | 4,930 | 675 | 2,051 | 126,112 | 2.08 | 2.40 |
| August | 5,180 | 1,630 | 2,911 | 178,992 | 2.95 | 3.40 |
| September | 4,530 | 1,330 | 2,330 | 138,644 | 2.36 | 2.63 |
| October | 6,030 | 1,230 | 2,982 | 183,357 | 3.02 | 3.48 |
| November | 1,530 | 930 | 1,197 | 71,226 | 1.21 | 1.35 |
| December | 3,430 | 875 | 1,693 | 104,099 | 1.72 | 1.98 |
| The year | 6,030 | 675 | 1,680 | 1,221,630 | 1.70 | 23.21 |

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT BINGHAM SCHOOL BRIDGE, ASHEVILLE, N. C.—*Continued.*

[Drainage area, 987 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1899. | | | | | | |
| January | 5,050 | 2,660 | 3,547 | 218,097 | 3.59 | 4.14 |
| February | 20,460 | 2,590 | 7,815 | 434 023 | 7.91 | 8.24 |
| March | 30,720 | 3,710 | 10,413 | 640,270 | 10.55 | 12.16 |
| April | 11,530 | 3,710 | 6,388 | 380,112 | 6.47 | 7.22 |
| May | 4,760 | 1,565 | 3,397 | 208,873 | 3.44 | 3.97 |
| June | 1,800 | 1,235 | 1,486 | 88,423 | 1.51 | 1.69 |
| July | 2,055 | 945 | 1,221 | 75,076 | 1.24 | 1.43 |
| August | 3,030 | 785 | 1,160 | 71,326 | 1.18 | 1.36 |
| September | 2,520 | 690 | 1,122 | 66,764 | 1.14 | 1.27 |
| October | 1,455 | 690 | 945 | 58,106 | .96 | 1.10 |
| November | 1,180 | 785 | 915 | 54,446 | .93 | 1.03 |
| December | 11,150 | 860 | 2,297 | 141,237 | 2.33 | 2.69 |
| The year | 30,720 | 690 | 3,393 | 2,436,753 | 3.44 | 46.29 |
| 1900. | | | | | | |
| January | 4,345 | 920 | 2,221 | 136,564 | 2.25 | 2.60 |
| February | 16,325 | 1,235 | 4,225 | 234,644 | 4.28 | 4.46 |
| March | 14,400 | 2,110 | 4,218 | 259,355 | 4.27 | 4.92 |
| April | 14,400 | 1,610 | 4,006 | 238,374 | 4.06 | 4.53 |
| May | 4,620 | 950 | 1,748 | 107,480 | 1.77 | 2.04 |
| June | 13,875 | 1,675 | 4,829 | 287,345 | 4.89 | 5.45 |
| July | 5,350 | 2,445 | 3,008 | 184,955 | 3.05 | 3.52 |
| August | 2,620 | 1,810 | 2,018 | 124,082 | 2.04 | 2.36 |
| September | 6,875 | 1,280 | 2,074 | 123,412 | 2.10 | 2.34 |
| October | 18,250 | 1,280 | 3,200 | 196,760 | 3.24 | 3.74 |
| November | 11,075 | 2,030 | 3,145 | 187,140 | 3.19 | 3.56 |
| December | 6,350 | 2,275 | 3,258 | 200,327 | 3.30 | 3.81 |
| The year | 18,250 | 920 | 3,163 | 2,280,438 | 3.20 | 43.33 |

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1901. | | | | | |
| January | 12,940 | 2,170 | 3,206 | 3.25 | 3.75 |
| February | 4,135 | 2,055 | 2,396 | 2.42 | 2.51 |
| March | 22,220 | 1,945 | 4,166 | 4.22 | 4.86 |
| April | 15,655 | 3,145 | 6,772 | 6.86 | 7.65 |
| May | 24,160 | 2,620 | 5,043 | 5.11 | 5.89 |
| June | 10,800 | 3,060 | 4,852 | 4.92 | 5.49 |
| July* | | | | | |
| August | 20,320 | 2,000 | 10,740 | 10.88 | 12.54 |
| September | 11,500 | 2,760 | 5,132 | 5.20 | 5.80 |
| October | 7,300 | 2,170 | 2,810 | 2.84 | 3.28 |
| November | 2,170 | 1,890 | 1,984 | 2.01 | 2.24 |
| December | 26,350 | 1,890 | 6,288 | 6.37 | 7.35 |

*No record.

### FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C.

This station is located at the steel highway bridge known as Smith Bridge, about 1 mile below the Southern Railway depot at Asheville, N. C., and near the end of the Patton Avenue line of the Asheville Street Railway Company. The United States Weather Bureau maintains a station at this place, and during 1904 a number of discharge measurements were made by the United States Geological Survey. Since then the discharge measurements have been continued and the gage heights have been furnished by the Weather Bureau.

The channel is straight for about 1,500 feet above and 800 feet below the station. There is but one channel at all stages, broken by three piers at ordinary and four at high-water stages. The banks are not high, but all water will probably be confined between the abutments, as the road has been raised by embankments. The current is fairly swift and somewhat irregular. The bed is of sand and bowlders and is irregular.

Discharge measurements are made from the walkway on the upstream side of the bridge, the initial point for soundings being the end of the handrail at the left bank. The bridge has five spans of 100 feet each, supported by four stone piers and two stone abutments.

A new boxed chain gage has been installed by the Weather Bureau to take the place of the vertical gage which is attached to the southwest corner of the second stone pier from the left bank. It is located on the downstream side of the bridge in the second panel to the left of the pier to which the vertical gage is attached. The length of the chain is 26.45 feet. The bench mark is the top of the downstream end of the second floor beam to the left of the second pier from the left bank; elevation, 20.08 feet above the datum of the gage.

DISCHARGE MEASUREMENTS OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| May 21 | B. S. Drane | 345 | 843 | 1.31 | −0.24 | 1,107 |
| July 20 | ----do | 339 | 668 | 1.06 | — .68 | 707 |
| Aug. 13 | ----do | 350 | 898 | 1.92 | .09 | 1,725 |
| Oct. 1 | ----do | 328 | 487 | 1.04 | — .91 | 506 |
| Dec. 10 | ----do | 330 | 656 | 1.08 | — .68 | 707 |
| 1905. | | | | | | |
| Apr. 17 | B. S. Drane | 318 | 930 | 1.70 | −0.07 | 1,577 |
| June 28 | ----do | 320 | 964 | 1.74 | .00 | 1,674 |
| Aug. 26 | ----do | 331 | 1,339 | 2.48 | 1.18 | 3,326 |
| Nov. 10 | W. E. Hall | 300 | 679 | 1.37 | — .52 | 931 |
| 1906. | | | | | | |
| Mar. 1 | W. E. Hall | 314 | 1,100 | ---- | 0.43 | 2,140 |
| Apr. 16 | O. P. Hall | 336 | 1,830 | ---- | 2.42 | 6,360 |
| June 16 | W. E. Hall | 342 | 2,400 | ---- | 3.87 | 10,600 |
| 1907. | | | | | | |
| Apr. 2 | Warren E. Hall | 317 | 970 | 1.60 | 0.04 | 1,553 |
| May 25 | ----do | 321 | 993 | 1.62 | .06 | 1,608 |
| Dec. 12 | ----do | 316 | 1,051 | 1.82 | .58 | 1,910 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | —0.50 | —0.40 | 0.50 | —0.30 | —0.10 | 0.40 | 0.50 | 0.10 | 0.10 | —0.50 | —0.50 | —0.60 |
| 2 | — .50 | — .40 | .50 | — .30 | — .20 | .20 | 2.00 | .10 | .40 | — .50 | — .50 | — .60 |
| 3 | — .60 | — .60 | .40 | — .30 | — .30 | .10 | 1.50 | .10 | .80 | — .50 | — .50 | 2.80 |
| 4 | — .80 | — .60 | .20 | — .40 | .20 | .00 | .50 | .10 | .50 | — .20 | — .50 | 2.30 |
| 5 | — .80 | — .60 | .20 | — .30 | .70 | .00 | .40 | .30 | .10 | — .30 | — .50 | .60 |
| 6 | — .60 | — .60 | .10 | .30 | 1.70 | .20 | .80 | .20 | .00 | — .40 | — .50 | .20 |
| 7 | 1.90 | .00 | .10 | .10 | 1.20 | — .30 | .60 | .00 | .00 | — .50 | — .50 | — .20 |
| 8 | .00 | .10 | .10 | — .10 | 1.30 | — .40 | .60 | .00 | — .20 | — .50 | — .60 | 1.90 |
| 9 | — .50 | — .10 | — .10 | — .10 | .80 | — .40 | .50 | 1.50 | — .10 | — .50 | — .60 | 2.80 |
| 10 | — .50 | .90 | .50 | .10 | 1.00 | — .40 | 1.10 | 2.30 | — .10 | — .60 | — .60 | 2.80 |
| 11 | — .60 | .50 | 1.00 | .00 | .80 | — .40 | 2.40 | 3.30 | — .20 | .00 | — .60 | 1.50 |
| 12 | .00 | .10 | .50 | .40 | .40 | — .40 | 5.70 | 3.90 | — .20 | 1.30 | — .60 | .80 |
| 13 | 3.40 | 1.00 | .60 | .60 | .40 | — .40 | 6.00 | 3.50 | — .20 | .00 | — .60 | .70 |
| 14 | 2.90 | 1.60 | .60 | .40 | .20 | — .40 | 5.10 | 2.70 | — .20 | — .30 | — .60 | .50 |
| 15 | .90 | 1.00 | .30 | .20 | .20 | — .40 | 4.40 | 1.70 | — .20 | — .40 | — .60 | .40 |
| 16 | .40 | .50 | .20 | .20 | 1.80 | .50 | 3.00 | 1.70 | — .20 | — .40 | — .60 | .80 |
| 17 | .00 | .10 | .10 | .10 | 1.50 | 3.00 | 3.00 | 1.10 | — .30 | — .40 | — .60 | .50 |
| 18 | .00 | .20 | .10 | .00 | .80 | 2.50 | 1.60 | .90 | — .30 | — .40 | — .60 | .40 |
| 19 | — .20 | — .50 | .00 | — .10 | .40 | 3.00 | 1.50 | .70 | — .30 | — .40 | — .60 | .20 |
| 20 | — .20 | — .40 | .00 | — .20 | .20 | 1.30 | 1.20 | .70 | — .30 | — .50 | — .60 | .10 |
| 21 | — .30 | 2.50 | .10 | — .20 | .20 | 1.00 | 1.00 | .60 | — .30 | — .50 | — .60 | 2.00 |
| 22 | — .30 | 2.00 | .50 | — .20 | .20 | .80 | 1.10 | .50 | — .30 | — .50 | — .50 | 1.80 |
| 23 | — .30 | 2.10 | .10 | — .30 | .50 | .70 | .90 | 1.00 | — .30 | — .50 | — .60 | 1.20 |
| 24 | — .30 | — .30 | 1.60 | .00 | .60 | .40 | .70 | 1.40 | — .40 | — .50 | — .60 | 1.00 |
| 25 | — .30 | 1.10 | .30 | — .40 | .30 | .20 | 1.00 | 1.60 | — .40 | — .50 | — .60 | .80 |
| 26 | — .30 | 1.00 | .10 | — .30 | .30 | .10 | .50 | 1.40 | — .40 | — .50 | — .60 | .50 |
| 27 | — .20 | .80 | .00 | — .10 | .30 | .30 | .30 | .90 | — .50 | — .50 | — .60 | .30 |
| 28 | .00 | .50 | — .10 | — .20 | 3.00 | .10 | .50 | .50 | — .50 | — .40 | — .60 | .20 |
| 29 | — .20 | ------- | — .20 | — .20 | 1.50 | — .10 | 1.00 | 1.00 | — .50 | — .40 | — .60 | .80 |
| 30 | — .20 | ------- | — .10 | .10 | .90 | .10 | .80 | .80 | — .50 | — .50 | — .60 | .70 |
| 31 | — .10 | ------- | — .20 | ------- | .60 | ------- | .20 | .20 | ------- | — .50 | ------- | .50 |
| 1906. | | | | | | | | | | | | |
| 1 | 0.30 | 2.00 | 0.40 | 1.80 | 0.60 | 0.10 | 0.50 | 0.80 | 2.20 | 3.40 | 0.70 | 0.70 |
| 2 | .20 | 1.80 | .40 | 1.60 | .50 | .50 | .30 | .90 | 2.00 | 3.40 | .60 | .60 |
| 3 | .30 | 1.60 | .50 | 1.00 | .50 | .50 | .50 | .80 | 1.70 | 4.30 | .50 | .50 |
| 4 | 4.00 | 1.20 | 2.00 | 1.00 | .50 | .40 | .70 | .70 | 1.10 | 5.30 | .50 | .50 |
| 5 | 3.80 | 1.10 | 1.40 | .80 | .50 | .40 | .70 | .60 | 1.60 | 4.90 | .50 | .50 |
| 6 | 2.90 | 1.00 | 1.00 | .80 | .50 | 1.40 | .70 | .50 | 2.00 | 4.50 | .50 | .40 |
| 7 | 1.40 | 1.00 | .60 | .70 | .60 | .80 | .50 | .80 | 1.50 | 3.60 | .40 | .40 |
| 8 | 1.20 | 1.00 | .60 | .70 | .50 | .40 | .30 | .70 | 1.30 | 3.20 | .30 | .40 |
| 9 | 1.00 | .90 | 1.00 | .60 | .30 | .40 | 1.00 | .30 | 1.00 | 2.60 | .30 | .40 |
| 10 | .70 | .80 | .80 | .90 | .30 | .80 | .50 | .20 | .70 | 2.30 | .20 | .40 |
| 11 | .30 | .60 | .60 | .70 | .20 | .70 | .30 | .20 | .60 | 2.00 | .20 | 1.60 |
| 12 | 1.00 | .70 | .50 | .50 | .20 | .60 | .20 | .10 | .70 | 1.80 | .20 | 1.10 |
| 13 | 1.10 | .90 | .50 | .50 | .20 | 1.80 | .20 | .10 | 1.50 | 1.70 | .20 | .80 |
| 14 | 1.30 | .70 | .50 | .60 | .10 | 3.60 | .20 | 1.00 | .80 | 1.50 | .10 | .60 |
| 15 | 1.10 | .60 | 1.00 | 3.20 | .10 | 3.50 | 1.40 | 1.10 | .60 | 1.40 | .10 | .50 |
| 16 | 1.00 | .50 | 2.20 | 2.60 | .10 | 4.20 | 2.10 | .80 | .50 | 1.30 | .10 | .50 |
| 17 | .80 | .60 | 1.40 | 1.60 | .10 | 3.40 | 1.60 | .80 | .40 | 1.30 | .10 | .60 |
| 18 | .70 | .60 | 1.00 | 1.20 | .10 | 3.50 | 2.50 | 1.00 | .70 | 1.40 | 2.00 | 1.20 |
| 19 | .70 | .60 | .90 | 1.00 | .00 | 2.00 | 2.90 | 1.40 | 5.70 | 2.60 | 5.00 | .90 |
| 20 | .50 | .50 | 2.60 | .90 | .00 | 1.50 | 2.10 | 1.00 | 5.10 | 2.00 | 4.10 | .90 |
| 21 | .50 | .50 | 2.00 | .80 | .00 | 1.10 | 1.50 | 1.40 | 4.70 | 1.60 | 3.60 | .90 |
| 22 | .80 | 1.10 | 1.50 | .80 | .00 | .40 | 1.50 | .70 | 4.00 | 1.40 | 3.10 | .80 |
| 23 | 7.80 | 1.80 | 1.10 | .70 | — .10 | .90 | 2.50 | 1.00 | 2.80 | 1.30 | 3.00 | .70 |
| 24 | 7.00 | .60 | 1.00 | .60 | — .10 | .90 | 1.60 | .80 | 2.60 | 1.30 | 1.50 | .60 |
| 25 | 5.00 | .60 | .90 | .50 | — .20 | 1.40 | 1.10 | .80 | 2.10 | 1.20 | 1.10 | .50 |
| 26 | 3.60 | .50 | .80 | .50 | .00 | 1.10 | 1.10 | .60 | 2.10 | 1.10 | 1.00 | .50 |
| 27 | 3.50 | .50 | .80 | .50 | 1.20 | .70 | 1.40 | .90 | 2.10 | 1.00 | .90 | .40 |
| 28 | 2.10 | .50 | .80 | .50 | 1.00 | .80 | 1.10 | 2.60 | 2.20 | .90 | .90 | .40 |
| 29 | 2.20 | ------- | .90 | .50 | .60 | .60 | .70 | 2.50 | 3.50 | .90 | .90 | .40 |
| 30 | 2.10 | ------- | 1.50 | .80 | .30 | .60 | .80 | 2.80 | 3.50 | .80 | .80 | .40 |
| 31 | 2.00 | ------- | 2.20 | ------- | .10 | ------- | .70 | 3.20 | ------- | .80 | ------- | 1.60 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.80 | 0.20 | 0.00 | 0.50 | 3.20 | 0.60 | —0.20 | —0.30 | — .60 | —0.20 | —0.70 | 0.00 |
| 2 | 1.80 | .40 | .40 | .30 | .10 | 1.40 | — .30 | — .30 | — .60 | — .40 | — .70 | — .10 |
| 3 | 1.40 | .40 | 1.00 | .10 | .80 | .80 | — .10 | — .40 | — .60 | — .40 | + .30 | — .10 |
| 4 | 1.10 | .40 | .50 | — .10 | 1.00 | .40 | — .10 | — .50 | — .50 | — .40 | — .30 | — .20 |
| 5 | 1.00 | 1.00 | .20 | — .20 | .80 | .20 | — .20 | — .60 | — .40 | — .40 | — .60 | — .20 |
| 6 | .80 | .70 | .10 | .00 | .50 | .10 | — .30 | — .60 | — .40 | — .40 | — .60 | — .30 |
| 7 | .70 | .40 | .10 | .70 | .60 | .00 | — .30 | — .60 | — .60 | — .40 | — .60 | — .30 |
| 8 | .50 | .30 | .20 | .40 | .60 | .10 | — .40 | — .50 | — .60 | — .50 | — .60 | — .30 |
| 9 | .50 | .10 | .10 | .30 | .50 | .30 | — .40 | — .50 | — .60 | — .30 | — .60 | — .20 |
| 10 | .50 | .10 | .10 | .20 | .40 | .90 | — .40 | — .60 | — .60 | — .40 | — .50 | .70 |
| 11 | .50 | .10 | .40 | .10 | .40 | .30 | — .20 | — .50 | — .50 | — .50 | — .50 | 2.00 |
| 12 | .40 | .10 | .30 | .10 | .40 | .10 | .00 | — .30 | — .50 | — .50 | — .50 | .70 |
| 13 | .40 | .10 | .20 | .00 | .30 | — .10 | — .10 | — .20 | — .50 | — .60 | — .50 | .20 |
| 14 | .40 | .10 | .10 | .00 | .20 | .10 | — .30 | — .30 | — .60 | — .60 | — .50 | 2.50 |
| 15 | .40 | .10 | .30 | — .10 | .10 | — .10 | — .40 | — .30 | — .60 | — .60 | — .60 | 3.20 |
| 16 | .30 | .10 | .30 | — .10 | .10 | — .20 | .00 | — .40 | — .70 | — .60 | — .60 | 2.80 |
| 17 | .30 | .10 | .20 | — .10 | .10 | — .30 | .00 | — .20 | — .60 | — .60 | — .60 | 1.00 |
| 18 | .30 | .00 | .10 | — .20 | .10 | — .30 | .00 | — .20 | — .60 | — .60 | — .60 | .70 |
| 19 | .30 | .00 | .10 | + .10 | .00 | — .30 | — .20 | — .30 | — .60 | — .60 | + .10 | .60 |
| 20 | .20 | — .10 | .10 | .10 | — .10 | — .30 | — .20 | — .30 | — .70 | — .60 | .00 | .50 |
| 21 | .30 | — .10 | .00 | — .10 | — .20 | — .10 | — .30 | — .40 | — .60 | — .60 | .20 | .30 |
| 22 | .30 | — .10 | .00 | + .20 | — .20 | .10 | — .30 | .00 | — .60 | — .60 | 1.70 | .20 |
| 23 | .20 | — .10 | .00 | 1.00 | — .20 | — .10 | — .40 | .10 | +1.40 | — .70 | 1.50 | 3.00 |
| 24 | .10 | — .10 | — .10 | .90 | — .20 | .10 | — .40 | — .10 | 2.00 | — .70 | 2.90 | 3.50 |
| 25 | .10 | .00 | — .10 | .40 | — .20 | .10 | — .40 | — .20 | .30 | — .70 | 2.50 | 2.00 |
| 26 | .10 | .10 | — .20 | .20 | .70 | .20 | — .20 | — .30 | — .20 | — .70 | 1.10 | 1.30 |
| 27 | .20 | .20 | .10 | 1.60 | .80 | — .10 | — .30 | — .40 | — .40 | — .70 | .80 | 1.00 |
| 28 | .10 | .10 | .00 | .60 | .20 | .30 | — .40 | — .50 | — .30 | — .60 | .40 | .70 |
| 29 | .10 | ------- | — .10 | .40 | .00 | .30 | — .30 | — .60 | + .40 | — .70 | .00 | .60 |
| 30 | .10 | ------- | — .20 | .30 | — .20 | .10 | .10 | — .60 | .10 | — .70 | .00 | .80 |
| 31 | .10 | ------- | .20 | ------- | .20 | ------- | — .20 | — .60 | ------- | — .70 | ------- | 2.70 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.70 | 0.30 | 1.20 | 0.80 | 1.00 | 0.20 | —0.30 | 0.10 | 0.30 | —0.10 |
| 2 | 1.20 | .30 | 1.10 | .80 | .80 | .10 | — .30 | — .20 | .20 | — .20 |
| 3 | 1.00 | .30 | 1.10 | .60 | .80 | .00 | .40 | — .20 | .20 | — .30 |
| 4 | .80 | .40 | 1.10 | .50 | .70 | .10 | .50 | .20 | .10 | — .30 |
| 5 | 1.50 | .40 | 1.00 | .50 | .50 | .00 | 1.50 | .00 | .10 | — .30 |
| 6 | 1.20 | .50 | 1.00 | .50 | .40 | .40 | 1.90 | .40 | 2.70 | — .30 |
| 7 | 1.00 | .70 | .90 | .50 | 1.20 | .20 | 1.20 | .80 | 1.30 | — .30 |
| 8 | 1.30 | .70 | .90 | .60 | 1.70 | .10 | 1.30 | .70 | .40 | — .40 |
| 9 | .90 | .60 | .80 | .50 | 1.00 | .00 | 1.00 | .80 | .40 | — .30 |
| 10 | .70 | .60 | .70 | .40 | .80 | .30 | 1.00 | .50 | .40 | 2.50 |
| 11 | .50 | .70 | .60 | .40 | .60 | .30 | .80 | .20 | .30 | .90 |
| 12 | 5.90 | 1.80 | .90 | .30 | .50 | .10 | .30 | .00 | .20 | .70 |
| 13 | 4.50 | 1.90 | .90 | .30 | .50 | .10 | .10 | .00 | .20 | .00 |
| 14 | 3.50 | 2.10 | .80 | .20 | .40 | .30 | .20 | — .10 | .20 | .00 |
| 15 | 2.00 | 5.90 | .70 | .20 | .30 | .30 | .10 | — .10 | .10 | — .10 |
| 16 | 1.50 | 5.40 | .60 | 1.80 | .30 | .30 | .50 | — .10 | .00 | — .10 |
| 17 | 1.20 | 4.80 | .50 | 1.20 | .60 | .00 | .20 | .30 | .00 | — .20 |
| 18 | 1.00 | 3.80 | .40 | .90 | .90 | .00 | .10 | .00 | .00 | — .30 |
| 19 | 1.00 | 2.30 | .40 | .80 | 1.20 | .00 | .10 | — .10 | — .10 | — .30 |
| 20 | .90 | 2.40 | .50 | .80 | .90 | — .10 | .00 | — .10 | — .20 | — .30 |
| 21 | .70 | 1.80 | 1.90 | .60 | .60 | .10 | — .20 | — .10 | — .20 | — .30 |
| 22 | .50 | 1.70 | 1.40 | .50 | .40 | .00 | — .20 | 1.10 | — .20 | — .30 |
| 23 | .50 | 1.40 | 1.10 | .40 | .40 | .00 | .30 | 1.10 | — .20 | 1.20 |
| 24 | .50 | 1.30 | 3.00 | .40 | .50 | .00 | .20 | 1.80 | — .20 | 3.40 |
| 25 | .40 | 1.20 | 2.90 | 1.10 | .40 | .00 | .00 | 3.20 | — .20 | 1.70 |
| 26 | .40 | 1.40 | 1.80 | 2.90 | .40 | — .10 | .20 | 4.90 | — .20 | 1.10 |
| 27 | .60 | 1.80 | 1.40 | 1.70 | .50 | — .10 | — .10 | 4.20 | — .20 | .80 |
| 28 | .60 | 1.40 | 1.10 | 1.40 | .40 | — .20 | .30 | 3.00 | .10 | .60 |
| 29 | .40 | 1.20 | 1.00 | 1.10 | .40 | — .20 | .40 | 1.30 | .20 | 2.60 |
| 30 | .30 | ..... | .90 | .90 | .50 | — .20 | .70 | 1.00 | .00 | 3.60 |
| 31 | .30 | ..... | .80 | ..... | .30 | ..... | .40 | .80 | ..... | 2.10 |

RATING TABLE FOR FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| —1.00 | 420 | 0.40 | 2,190 | 1.80 | 4,310 | 3.40 | 7,030 |
| — .90 | 510 | .50 | 2,330 | 1.90 | 4,470 | 3.60 | 7,390 |
| — .80 | 610 | .60 | 2,470 | 2.00 | 4,630 | 3.80 | 7,750 |
| — .70 | 720 | .70 | 2,620 | 2.10 | 4,790 | 4.00 | 8,110 |
| — .60 | 840 | .80 | 2,770 | 2.20 | 4,950 | 4.20 | 8,490 |
| — .50 | 960 | .90 | 2,920 | 2.30 | 5,120 | 4.40 | 8,870 |
| — .40 | 1,090 | 1.00 | 3,070 | 2.40 | 5,290 | 4.60 | 9,250 |
| — .30 | 1,220 | 1.10 | 3,220 | 2.50 | 5,460 | 4.80 | 9,630 |
| — .20 | 1,350 | 1.20 | 3,370 | 2.60 | 5,630 | 5.00 | 10,010 |
| — .10 | 1,490 | 1.30 | 3,520 | 2.70 | 5,800 | 5.50 | 11,010 |
| .00 | 1,630 | 1.40 | 3,670 | 2.80 | 5,970 | 6.00 | 12,010 |
| .10 | 1,770 | 1.50 | 3,830 | 2.90 | 6,140 | | |
| .20 | 1,910 | 1.60 | 3,990 | 3.00 | 6,310 | | |
| .30 | 2,050 | 1.70 | 4,150 | 3.20 | 6,670 | | |

NOTE.—The above table is based on nine discharge measurements made during 1904–1905. It is well defined between gage heights —0.9 foot and 1.2 feet. The table has been extended beyond these limits.

RATING TABLE FOR FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| —0.20 | 1,330 | 1.00 | 3,170 | 2.20 | 5,730 | 3.80 | 10,370 |
| — .10 | 1,460 | 1.10 | 3,350 | 2.30 | 5,980 | 4.00 | 11,040 |
| .00 | 1,590 | 1.20 | 3,540 | 2.40 | 6,240 | 4.20 | 11,730 |
| .10 | 1,730 | 1.30 | 3,730 | 2.50 | 6,500 | 4.40 | 12,430 |
| .20 | 1,870 | 1.40 | 3,930 | 2 60 | 6,770 | 4.60 | 13,150 |
| .30 | 2,020 | 1.50 | 4,130 | 2.70 | 7,040 | 4.80 | 13,890 |
| .40 | 2,170 | 1.60 | 4,340 | 2.80 | 7,320 | 5.00 | 14,650 |
| .50 | 2,330 | 1.70 | 4,660 | 2.90 | 7,600 | 5.20 | 15,420 |
| .60 | 2,490 | 1.80 | 4,780 | 3.00 | 7,890 | 5.40 | 16,200 |
| .70 | 2,650 | 1.90 | 5,010 | 3.20 | 8,480 | 5.60 | 17,000 |
| .80 | 2.820 | 2.00 | 5,240 | 3.40 | 9,090 | 5.80 | 17,800 |
| .90 | 2,990 | 2.10 | 5,480 | 3.60 | 9,720 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on eleven discharge measurements made during 1904–1906. It is well defined between gage heights —1.0 foot and +5.0 feet. Above gage height 5.40 the rating curve is a tangent, the difference being 400 per tenth.

RATING TABLE FOR FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| —0.30 | 1,130 | 0.60 | 2,390 | 1.50 | 4,060 | 2.40 | 6,230 |
| — .20 | 1,250 | .70 | 2,550 | 1.60 | 4,270 | 2.50 | 6,500 |
| — .10 | 1,380 | .80 | 2,720 | 1.70 | 4,490 | 2.60 | 6,770 |
| .00 | 1,510 | .90 | 2,890 | 1.80 | 4,720 | 2.70 | 7,040 |
| .10 | 1,650 | 1.00 | 3,070 | 1.90 | 4,960 | 2.80 | 7,320 |
| .20 | 1,790 | 1.10 | 3,250 | 2.00 | 5,200 | 2.90 | 7,600 |
| .30 | 1,930 | 1.20 | 3,440 | 2.10 | 5,450 | 3.00 | 7,890 |
| .40 | 2,080 | 1.30 | 3,640 | 2.20 | 5,700 | 3.10 | 8,180 |
| .50 | 2,230 | 1.40 | 3,850 | 2.30 | 5,960 | 3.20 | 8,480 |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon discharge measurements made during 1906–1907. It is well defined.

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C.

[Drainage area, 987 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1905. | | | | | |
| January | 7,030 | 610 | 1,743 | 1.77 | 2.04 |
| February | 5,460 | 840 | 2,255 | 2.28 | 2.37 |
| March | 3,990 | 1,350 | 1,996 | 2.02 | 2.33 |
| April | 2,470 | 1,090 | 1,536 | 1.56 | 1.74 |
| May | 6,310 | 1,220 | 2,637 | 2.67 | 3.08 |
| June | 6,310 | 1,090 | 2,211 | 2.24 | 2.50 |
| July | 12,010 | 1,910 | 4,178 | 4.23 | 4.88 |
| August | 7,930 | 1,630 | 3,320 | 3.36 | 3.87 |
| September | 2,770 | 960 | 1,406 | 1.42 | 1.58 |
| October | 3,520 | 840 | 1,145 | 1.16 | 1.34 |
| November | 960 | 840 | 872 | .883 | .985 |
| December | 5,970 | 840 | 2,961 | 3.00 | 3.46 |
| The year | 12,010 | 840 | 2,188 | 2.22 | 30.18 |

ESTIMATED MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT SMITH BRIDGE, ASHEVILLE, N. C.—*Continued.*

[Drainage area, 987 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1906. | | | | | |
| January | 25,800 | 1,870 | 6,020 | 6.10 | 7.03 |
| February | 5,240 | 2,330 | 3,010 | 3.05 | 3.18 |
| March | 6,770 | 2,170 | 3,400 | 3.44 | 3.97 |
| April | 8,480 | 2,330 | 3,210 | 3.25 | 3.63 |
| May | 3,540 | 1,330 | 2,010 | 2.04 | 2.35 |
| June | 11,700 | 1,730 | 4,080 | 4.13 | 4.61 |
| July | 7,600 | 1,870 | 3,440 | 3.49 | 4.02 |
| August | 8,480 | 1,730 | 3,330 | 3.37 | 3.88 |
| September | 17,400 | 2,170 | 5,780 | 5.86 | 6.54 |
| October | 15,800 | 2,820 | 6,050 | 6.13 | 7.07 |
| November | 14,600 | 1,730 | 3,820 | 3.87 | 4.32 |
| December | 4,340 | 2,170 | 2,610 | 2.64 | 3.04 |
| The year | 25,800 | 1,330 | 3,900 | 3.94 | 53.64 |
| 1907.* | | | | | |
| January | 7,320 | 1,650 | 2,360 | 2.39 | 2.76 |
| February | 3,070 | 1,380 | 1,750 | 1.77 | 1.84 |
| March | 3,070 | 1,250 | 1,720 | 1.74 | 2.01 |
| April | 5,200 | 1,250 | 2,010 | 2.04 | 2.28 |
| May | 8,480 | 1,250 | 2,100 | 2.13 | 2.46 |
| June | 3,850 | 1,130 | 1,810 | 1.83 | 2.04 |

NOTE.—Values for 1906 are excellent.
*After June the discharge was affected by the building of bridge piers below the station.

FRENCH BROAD RIVER AT HORSESHOE, N. C.

This station was established October 4, 1904, and was discontinued March 31, 1906. It is located at the steel highway bridge at Horseshoe, N. C.

DISCHARGE MEASUREMENTS OF FRENCH BROAD RIVER AT HORSESHOE, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|
| 1904. | | | | | |
| July 18 | B. S. Drane | 82 | 241 | 0.86 | 396 |
| Aug. 18 | ----do | 82 | 285 | 1.51 | 529 |
| Oct. 3 | ----do | 81 | 192 | .51 | 290 |
| Dec. 7 | ----do | 81 | 318 | 1.91 | 584 |
| 1905. | | | | | |
| Apr. 12 | B. S. Drane | 81 | 439 | 3.10 | 888 |
| June 22 | ----do | 81 | 522 | 3.84 | 1,160 |
| Aug. 29 | ----do | 81 | 488 | 3.60 | 1,110 |
| Nov. 11 | W. E. Hall | 81 | 259 | 1.37 | 415 |
| 1906. | | | | | |
| Mar. 6 | W. E. Hall | 81 | 613 | 4.62 | 1,410 |
| Mar. 6 | ----do | 81 | 613 | 4.62 | 1,420 |

MEAN DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT HORSESHOE, N. C., FOR 1904.

| Day. | Oct. | Nov. | Dec. | Day. | Oct. | Nov. | Dec. | Day. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.50 | 0.35 | 0.60 | 12 | 0.40 | 0.50 | 1.00 | 23 | 0.30 | 0.65 | 0.75 |
| 2 | .50 | .35 | .55 | 13 | .40 | 1.50 | .90 | 24 | .30 | .65 | .75 |
| 3 | .50 | .45 | .65 | 14 | .35 | 2.00 | .80 | 25 | .30 | .55 | .90 |
| 4 | .50 | 2.45 | .75 | 15 | .35 | 1.10 | .80 | 26 | .35 | .55 | 1.00 |
| 5 | .50 | 2.10 | .75 | 16 | .35 | .90 | .85 | 27 | .35 | .55 | 1.55 |
| 6 | .50 | 1.75 | 4.60 | 17 | .30 | .75 | .85 | 28 | .35 | .55 | 6.00 |
| 7 | .50 | 1.00 | 2.20 | 18 | .30 | .80 | .95 | 29 | .35 | .50 | 3.30 |
| 8 | .55 | .75 | 1.50 | 19 | .30 | .70 | .85 | 30 | .35 | .50 | 2.15 |
| 9 | .45 | .60 | 1.30 | 20 | .30 | .65 | .80 | 31 | .35 | ------- | 1.80 |
| 10 | .45 | .60 | 1.10 | 21 | .30 | .60 | .80 | | | | |
| 11 | .40 | .55 | 1.10 | 22 | .30 | .60 | .75 | | | | |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT HORSESHOE, N. C., FOR 1905.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.60 | 1.70 | 4.00 | 2.40 | 2.60 | 3.30 | 6.80 | 3.10 | 3.20 | 1.80 | 1.65 | 1.30 |
| 2 | 1.45 | 1.65 | 3.90 | 2.35 | 2.40 | 3.00 | 7.20 | 2.80 | 4.00 | 1.80 | 1.60 | 1.30 |
| 3 | 1.45 | 1.60 | 3.80 | 2.30 | 2.40 | 2.80 | 4.80 | 2.80 | 3.80 | 1.85 | 1.55 | 9.40 |
| 4 | 1.40 | 1.50 | 3.50 | 2.25 | 4.00 | 2.70 | 3.70 | 2.90 | 3.40 | 2.40 | 1.50 | 6.30 |
| 5 | 1.15 | 1.50 | 3.40 | 2.40 | 4.70 | 2.70 | 3.40 | 3.20 | 3.20 | 2.00 | 1.50 | 3.50 |
| 6 | 1.25 | 1.90 | 3.30 | 3.20 | 8.40 | 2.60 | 3.80 | 2.90 | 2.95 | 1.80 | 1.45 | 2.70 |
| 7 | 4.70 | 1.80 | 3.30 | 2.70 | 6.30 | 2.40 | 3.80 | 2.85 | 2.80 | 1.75 | 1.45 | 2.30 |
| 8 | 2.70 | 2.35 | 3.30 | 2.40 | 5.70 | 2.35 | 4.80 | 2.80 | 2.75 | 1.65 | 1.45 | 3.60 |
| 9 | 2.00 | 3.40 | 3.20 | 2.40 | 4.80 | 2.20 | 3.70 | 6.50 | 2.70 | 1.60 | 1.40 | 9.00 |
| 10 | .95 | 5.00 | 5.20 | 2.80 | 4.60 | 2.10 | 3.20 | 5.50 | 2.65 | 1.60 | 1.40 | 9.30 |
| 11 | .65 | 3.80 | 4.80 | 2.50 | 4.00 | 2.10 | 6.60 | 10.20 | 2.55 | 6.90 | 1.40 | 5.40 |
| 12 | 8.40 | 3.10 | 4.00 | 2.60 | 3.60 | 2.00 | 12.50 | 10.80 | 2.55 | 4.40 | 1.40 | 4.40 |
| 13 | 10.20 | 6.30 | 4.20 | 3.80 | 3.30 | 2.00 | 13.80 | 10.50 | 2.50 | 2.70 | 1.40 | 3.60 |
| 14 | 7.00 | 5.30 | 3.80 | 3.40 | 3.20 | 1.85 | 15.20 | 7.50 | 2.40 | 2.30 | 1.35 | 3.20 |
| 15 | 4.50 | 4.00 | 3.50 | 2.90 | 2.90 | 2.40 | 15.00 | 6.30 | 2.40 | 2.10 | 1.35 | 3.60 |
| 16 | 3.70 | 3.00 | 3.30 | 3.00 | 5.90 | 10.20 | 7.80 | 5.40 | 2.35 | 2.00 | 1.30 | 4.60 |
| 17 | 3.20 | 3.00 | 3.10 | 2.70 | 4.80 | 8.90 | 6.70 | 5.30 | 2.30 | 2.00 | 1.25 | 3.80 |
| 18 | 2.70 | 2.85 | 3.00 | 2.50 | 3.80 | 6.30 | 6.00 | 4.50 | 2.25 | 1.90 | 1.20 | 3.40 |
| 19 | 2.55 | 2.60 | 2.90 | 2.35 | 3.40 | 4.20 | 5.70 | 4.40 | 2.35 | 1.85 | 1.20 | 3.10 |
| 20 | 2.50 | 2.80 | 2.80 | 2.30 | 3.20 | 4.40 | 5.30 | 4.40 | 2.30 | 1.80 | 1.45 | 3.20 |
| 21 | 2.35 | 8.90 | 3.30 | 2.25 | 3.00 | 4.90 | 5.00 | 4.30 | 2.30 | 1.80 | 1.70 | 7.30 |
| 22 | 2.20 | 6.70 | 3.70 | 2.20 | 3.30 | 3.90 | 5.30 | 4.60 | 2.15 | 1.80 | 1.45 | 5.30 |
| 23 | 2.10 | 6.70 | 3.20 | 2.15 | 3.20 | 3.80 | 4.60 | 5.60 | 2.00 | 1.75 | 1.35 | 4.60 |
| 24 | 2.00 | 6.00 | 3.00 | 2.10 | 4.00 | 3.30 | 4.20 | 6.60 | 2.00 | 1.70 | 1.30 | 4.70 |
| 25 | 1.80 | 5.40 | 3.10 | 2.10 | 3.30 | 2.75 | 4.00 | 6.00 | 1.95 | 1.65 | 1.30 | 4.40 |
| 26 | 2.50 | 5.00 | 2.90 | 2.90 | 3.50 | 2.70 | 3.20 | 5.40 | 1.90 | 1.85 | 1.30 | 3.80 |
| 27 | 3.40 | 4.60 | 2.75 | 2.60 | 5.80 | 2.75 | 3.40 | 4.50 | 1.85 | 1.95 | 1.30 | 3.50 |
| 28 | 3.60 | 4.40 | 2.50 | 2.40 | 6.30 | 2.70 | 4.10 | 4.00 | 1.85 | 1.80 | 1.25 | 3.20 |
| 29 | 2.40 | ------- | 2.50 | 2.30 | 4.50 | 2.40 | 3.80 | 3.60 | 1.80 | 1.75 | 1.25 | 5.10 |
| 30 | 2.20 | ------- | 2.50 | 3.20 | 4.20 | 3.20 | 3.40 | 3.40 | 1.80 | 1.70 | 1.30 | 4.40 |
| 31 | 1.80 | ------- | 2.60 | ------- | 3.60 | ------- | 3.40 | 3.30 | ------- | 1.70 | ------ | 4.50 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT HORSESHOE, N. C., FOR 1906.

| Day. | Jan. | Feb. | Mar. | Day. | Jan. | Feb. | Mar. |
|---|---|---|---|---|---|---|---|
| 1 | 3.60 | 6.70 | 3.60 | 17 | 4.40 | 4.00 | 5.50 |
| 2 | 3.40 | 6.30 | 3.40 | 18 | 4.20 | 3.80 | 4.90 |
| 3 | 7.10 | 5.70 | 3.70 | 19 | 4.20 | 3.80 | 7.00 |
| 4 | 12.70 | 5.50 | 5.50 | 20 | 3.90 | 3.60 | 9.90 |
| 5 | 13.00 | 5.20 | 5.40 | 21 | 3.80 | 3.80 | 6.80 |
| 6 | 7.50 | 5.00 | 4.80 | 22 | 8.20 | 5.50 | 5.90 |
| 7 | 5.90 | 4.90 | 4.40 | 23 | 16.00 | 4.20 | 5.50 |
| 8 | 5.40 | 4.80 | 4.60 | 24 | 16.00 | 4.00 | 4.90 |
| 9 | 5.00 | 4.60 | 4.80 | 25 | 14.00 | 3.90 | 4.80 |
| 10 | 4.50 | 4.40 | 4.50 | 26 | 10.00 | 3.80 | 4.60 |
| 11 | 4.20 | 4.20 | 4.30 | 27 | 7.80 | 3.80 | 4.50 |
| 12 | 5.50 | 4.40 | 4.00 | 28 | 7.20 | 3.70 | 4.60 |
| 13 | 5.00 | 4.40 | 3.80 | 29 | 7.10 | ..... | 4.50 |
| 14 | 5.50 | 4.30 | 4.00 | 30 | 7.00 | ..... | 7.80 |
| 15 | 4.80 | 4.20 | 7.30 | 31 | 6.90 | ..... | 8.80 |
| 16 | 4.60 | 4.20 | 7.20 | | | | |

RATING TABLE FOR FRENCH BROAD RIVER AT HORSESHOE, N. C., FOR 1904–1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.30 | 242 | 1.50 | 473 | 2.70 | 785 | 3.90 | 1,165 |
| .40 | 258 | 1.60 | 496 | 2.80 | 815 | 4.00 | 1,200 |
| .50 | 275 | 1.70 | 519 | 2.90 | 845 | 4.20 | 1,270 |
| .60 | 292 | 1.80 | 542 | 3.00 | 875 | 4.40 | 1,340 |
| .70 | 310 | 1.90 | 566 | 3.10 | 905 | 4.60 | 1,410 |
| .80 | 328 | 2.00 | 590 | 3.20 | 935 | 4.80 | 1,480 |
| .90 | 347 | 2.10 | 615 | 3.30 | 965 | 5.00 | 1,550 |
| 1.00 | 367 | 2.20 | 640 | 3.40 | 995 | 5.20 | 1,630 |
| 1.10 | 387 | 2.30 | 665 | 3.50 | 1,025 | 5.40 | 1,710 |
| 1.20 | 408 | 2.40 | 695 | 3.60 | 1,060 | 6.00 | 1,950 |
| 1.30 | 429 | 2.50 | 725 | 3.70 | 1,095 | | |
| 1.40 | 451 | 2.60 | 755 | 3.80 | 1,130 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on eight discharge measurements made during 1904–1906. It is well defined between gage heights 0.5 foot and 5.0 feet. Above 5.0 feet the rating curve is a tangent, the difference being 40 per tenth.

MONTHLY DISCHARGE OF FRENCH BROAD RIVER AT HORSESHOE, N. C.

[Drainage area, 325 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| October | 275 | 242 | 256 | 0.788 | 0.91 |
| November | 710 | 250 | 346 | 1.06 | 1.18 |
| December | 1,950 | 284 | 480 | 1.48 | 1.71 |
| 1905. | | | | | |
| January | 3,630 | 301 | 918 | 2.82 | 3.25 |
| February | 3,110 | 473 | 1,190 | 3.66 | 3.81 |
| March | 1,630 | 725 | 994 | 3.06 | 3.53 |
| April | 1,130 | 615 | 751 | 2.31 | 2.58 |
| May | 2,910 | 695 | 1,280 | 3.94 | 4.54 |
| June | 3,630 | 554 | 1,050 | 3.23 | 3.60 |
| July | 5,630 | 935 | 1,960 | 6.03 | 6.95 |
| August | 3,870 | 815 | 1,610 | 4.95 | 5.71 |
| September | 1,200 | 542 | 732 | 2.25 | 2.51 |
| October | 2,310 | 496 | 643 | 1.98 | 2.28 |
| November | 519 | 408 | 449 | 1.38 | 1.54 |
| December | 3,310 | 429 | 1,400 | 4.31 | 4.97 |
| The year | 5,630 | 301 | 1,080 | 3.33 | 45.27 |
| 1906. | | | | | |
| January | 5,950 | 995 | 2,380 | 7.32 | 8.44 |
| February | 2,230 | 1,060 | 1,390 | 4.28 | 4.46 |
| March | 3,510 | 995 | 1,700 | 5.23 | 6.03 |

NOTE.—Values for 1904–1906 are good.

FRENCH BROAD RIVER AT ROSMAN, N. C.

This station was established on May 7, 1907. It is located at a wagon bridge, about 800 feet east of the railroad station at Rosman.

The vertical gage is attached to the right-bank abutment or the planking extending upstream from same.

Discharge measurements are made from a two-truss wooden wagon bridge. Both banks may overflow at high stages. The current is good and the rating should be constant.

The bench mark is a nail in the downstream end of the right-bank bent cap, inside toward the river; elevation 13.03 feet.

DISCHARGE MEASUREMENTS OF FRENCH BROAD RIVER AT ROSMAN, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 7 | Warren E. Hall | 71 | 297 | 0.79 | 2.31 | 235 |
| July 16 | ----do | 67 | 258 | .51 | 2.00 | 132 |
| Sept. 23 | ----do | 70 | 337 | 1.59 | 2.90 | 538 |
| Sept. 23 | ----do | 70 | 340 | 1.39 | 2.83 | 474 |
| Sept. 23 | ----do | 70 | 331 | 1.33 | 2.78 | 440 |
| Dec. 16 | ----do | 63 | 259 | 1.12 | 2.50 | 289 |

DAILY GAGE HEIGHT, IN FEET, OF FRENCH BROAD RIVER AT ROSMAN, N. C., FOR 1907-1908.

| 1907. (Day) | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 3.20 | 1.90 | 1.90 | 1.90 | 2.10 | 1.90 | 2.10 |
| 2 | ---------- | 2.40 | 1.90 | 1.90 | 1.90 | 2.10 | 2.60 | 2.10 |
| 3 | ---------- | 2.20 | 1.90 | 1.90 | 1.90 | 2.00 | 2.30 | 2.00 |
| 4 | ---------- | 2.10 | 1.90 | 1.90 | 1.90 | 2.00 | 2.20 | 2.00 |
| 5 | ---------- | 2.10 | 1.90 | 1.90 | 1.90 | 2.00 | 2.00 | 2.00 |
| 6 | ---------- | 2.10 | 1.90 | 1.80 | 1.90 | 2.00 | 2.00 | 2.00 |
| 7 | 2.30 | 2.00 | 1.90 | 1.80 | 1.80 | 2.00 | 1.90 | 2.00 |
| 8 | 2.20 | 2.20 | 1.90 | 1.80 | 1.90 | 2.10 | 1.90 | 2.00 |
| 9 | 2.20 | 2.10 | 1.90 | 1.80 | 1.90 | 2.00 | 1.90 | 2.60 |
| 10 | 2.10 | 2.10 | 1.90 | 1.80 | 1.90 | 1.90 | 2.30 | 3.30 |
| 11 | 2.30 | 2.00 | 2.00 | 2.00 | 1.90 | 1.90 | 2.00 | 2.80 |
| 12 | 2.10 | 2.00 | 2.00 | 1.90 | 1.90 | 1.90 | 2.00 | 2.60 |
| 13 | 2.10 | 2.10 | 2.00 | 1.90 | 1.80 | 1.90 | 1.90 | 2.40 |
| 14 | 2.10 | 2.10 | 2.00 | 1.90 | 1.80 | 1.90 | 1.90 | 3.40 |
| 15 | 2.20 | 2.00 | 2.00 | 2.00 | 1.80 | 1.90 | 1.90 | 2.80 |
| 16 | 2.10 | 2.00 | 2.20 | 2.00 | 1.80 | 1.90 | 1.90 | 2.50 |
| 17 | 2.10 | 2.00 | 2.00 | 1.90 | 1.80 | 1.90 | 1.90 | 2.20 |
| 18 | 2.10 | 2.00 | 2.00 | 2.00 | 1.80 | 1.90 | 2.80 | 2.20 |
| 19 | 2.10 | 2.00 | 2.00 | 2.00 | 1.80 | 1.90 | 2.20 | 2.20 |
| 20 | 2.10 | 2.00 | 2.00 | 2.00 | 1.80 | 1.90 | 2.20 | 2.20 |
| 21 | 2.00 | 2.00 | 1.90 | 1.90 | 1.80 | 1.90 | 3.60 | 2.10 |
| 22 | 2.00 | 2.00 | 1.90 | 2.10 | 2.00 | 1.90 | 2.10 | 1.90 |
| 23 | 2.00 | 2.00 | 1.90 | 2.10 | 4.20 | 1.90 | 2.70 | 4.20 |
| 24 | 2.00 | 2.00 | 1.90 | 2.10 | 2.20 | 1.90 | 3.10 | 3.00 |
| 25 | 2.00 | 2.00 | 1.90 | 2.00 | 2.10 | 1.80 | 2.50 | 2.80 |
| 26 | 2.30 | 2.00 | 1.90 | 1.90 | 2.00 | 1.80 | 2.40 | 2.50 |
| 27 | 2.10 | 2.00 | 1.90 | 1.90 | 2.00 | 1.90 | 2.30 | 2.50 |
| 28 | 2.00 | 2.00 | 2.50 | 1.90 | 2.20 | 1.90 | 2.30 | 2.20 |
| 29 | 2.00 | 2.00 | 2.00 | 1.90 | 2.40 | 1.90 | 2.20 | 2.20 |
| 30 | 2.00 | 1.90 | 2.00 | 1.90 | 2.20 | 1.90 | 2.10 | 3.90 |
| 31 | 2.25 | ---------- | 1.90 | 1.90 | ---------- | 1.90 | ---------- | 2.50 |

| 1908. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.80 | 2.80 | 2.70 | 2.50 | 2.90 | 2.30 | 2.20 | 2.10 | 2.40 | 2.00 |
| 2 | 2.60 | 2.60 | 2.70 | 2.40 | 2.80 | 2.30 | 2.30 | 2.00 | 2.40 | 2.00 |
| 3 | 2.40 | 2.50 | 2.80 | 2.20 | 2.70 | 2.40 | 2.40 | 2.00 | 2.30 | 2.00 |
| 4 | 2.00 | 2.50 | 2.80 | 2.00 | 2.70 | 2.70 | 2.90 | 2.00 | 2.30 | 2.00 |
| 5 | 2.60 | 2.20 | 2.80 | 2.50 | 2.70 | 2.70 | 3.00 | 2.60 | 2.90 | 2.00 |
| 6 | 2.60 | 2.20 | 2.60 | 2.50 | 2.70 | 2.70 | 2.80 | 2.40 | 2.60 | 1.90 |
| 7 | 2.60 | 2.40 | 2.60 | 2.50 | 3.30 | 2.40 | 2.70 | 2.40 | 2.60 | 2.00 |
| 8 | 2.60 | 2.40 | 2.50 | 2.50 | 2.90 | 2.40 | 2.50 | 2.40 | 2.40 | 2.20 |
| 9 | 2.40 | 2.30 | 2.40 | 2.40 | 2.80 | 2.40 | 2.30 | 2.10 | 2.40 | 2.60 |
| 10 | 2.40 | 2.30 | 2.40 | 2.40 | 2.60 | 2.40 | 2.30 | 2.10 | 2.20 | 2.90 |
| 11 | 2.40 | 2.60 | 2.40 | 2.40 | 2.60 | 2.40 | 2.30 | 2.10 | 2.20 | 2.30 |
| 12 | 3.90 | 2.90 | 2.80 | 2.20 | 2.60 | 2.40 | 2.30 | 2.10 | 2.10 | 2.20 |
| 13 | 3.00 | 3.00 | 2.70 | 2.20 | 2.60 | 2.40 | 2.20 | 2.00 | 2.00 | 2.00 |
| 14 | 2.90 | 3.30 | 2.70 | 2.50 | 2.60 | 2.40 | 2.20 | 2.00 | 2.00 | 2.00 |
| 15 | 2.90 | 7.30 | 2.60 | 3.30 | 2.60 | 2.70 | 2.20 | 2.00 | 2.00 | 2.00 |
| 16 | 2.80 | 3.90 | 2.40 | 2.90 | 2.70 | 2.40 | 2.20 | 2.00 | 2.00 | 2.00 |
| 17 | 2.60 | 3.50 | 2.40 | 2.90 | 2.70 | 2.40 | 2.20 | 2.00 | 2.00 | 2.00 |
| 18 | 2.60 | 3.00 | 2.40 | 2.70 | 2.70 | 2.40 | 2.20 | 2.00 | 2.00 | 2.00 |
| 19 | 2.80 | 3.00 | 2.60 | 2.60 | 2.60 | 2.40 | 2.10 | 2.00 | 2.00 | 2.00 |
| 20 | 2.50 | 2.90 | 2.90 | 2.60 | 2.60 | 2.40 | 2.10 | 2.30 | 2.00 | 2.00 |
| 21 | 2.50 | 2.70 | 2.90 | 2.50 | 2.60 | 2.30 | 2.10 | 2.70 | 2.00 | 2.00 |
| 22 | 2.50 | 2.70 | 2.70 | 2.50 | 2.60 | 2.30 | 2.10 | 3.00 | 2.00 | 2.20 |
| 23 | 2.50 | 2.70 | 3.00 | 2.50 | 2.60 | 2.30 | 2.10 | 2.70 | 2.00 | 2.90 |
| 24 | 2.40 | 2.60 | 3.40 | 2.40 | 2.60 | 2.30 | 2.10 | 3.50 | 2.00 | 2.60 |
| 25 | 2.00 | 2.90 | 2.90 | 4.70 | 2.60 | 2.30 | 2.30 | 3.80 | 2.00 | 2.40 |
| 26 | 2.80 | 3.00 | 2.70 | 3.40 | 2.80 | 2.30 | 2.20 | 3.00 | 1.90 | 2.20 |
| 27 | 2.80 | 2.90 | 2.70 | 2.90 | 2.50 | 2.30 | 2.20 | 2.90 | 2.10 | 2.90 |
| 28 | 2.40 | 2.80 | 2.60 | 2.70 | 2.50 | 2.30 | 2.20 | 2.80 | 2.20 | 4.40 |
| 29 | 2.40 | 2.70 | 2.50 | 2.70 | 2.50 | 2.30 | 2.10 | 2.50 | 2.00 | 3.00 |
| 30 | 2.40 | -------- | 2.60 | 2.90 | 2.50 | 2.30 | 2.10 | 2.40 | 2.00 | 3.00 |
| 31 | 2.60 | -------- | 2.80 | -------- | 2.30 | -------- | 2.10 | 2.40 | -------- | 2.90 |

RATING TABLE FOR FRENCH BROAD RIVER AT ROSMAN, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.80 | 90 | 2.15 | 175 | 2.50 | 300 | 2.85 | 480 |
| 1.85 | 100 | 2.20 | 190 | 2.55 | 322 | 2.90 | 510 |
| 1.90 | 110 | 2.25 | 206 | 2.60 | 345 | 2.95 | 540 |
| 1.95 | 121 | 2.30 | 223 | 2.65 | 370 | 3.00 | 570 |
| 2.00 | 133 | 2.35 | 241 | 2.70 | 395 | | |
| 2.05 | 146 | 2.40 | 260 | 2.75 | 422 | | |
| 2.10 | 160 | 2.45 | 280 | 2.80 | 450 | | |

## NOLICHUCKY RIVER NEAR GREENEVILLE, TENN.

This station was established May 7, 1903. It is located at Jones' bridge, 5 miles southeast of Greeneville, Tenn., which is the nearest railroad station.

The channel is straight for about 700 feet above and below the station. The right bank is high, but at flood stages part of the water will pass around the end of the bridge. The left bank is high and can never overflow. The section is regular, and the bed is composed of gravel and is not subject to change. The velocity is uniform and well distributed except at extreme low water.

Discharge measurements are made from the downstream side of the two-span steel highway bridge. The initial point for soundings is the left end of the top bar of the downstream handrail.

A standard chain gage is bolted to the lower chord of the bridge on the upstream side midway between the second and third intermediate posts from the right bank; length of chain, 33.63 feet. The gage is read once each day by B. H. Jones. Bench marks were established as follows: (1) A standard iron bench-mark post of the United States Geological Survey, set on the left bank just below the bridge, 5.5 feet downstream from the left end of the bridge; elevation, 26.80 feet. (2) The upper outer edge of the outer eyebar of the lower chord of the bridge, 3.6 feet to the right of the center of the third intermediate post from the right bank, marked by a spot of white paint and the letters "B. M."; elevation, 32.03 feet. Elevations refer to datum of the gage.

DISCHARGE MEASUREMENTS OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1903.

| Date. | Hydrographer. | Area of Section (Square Feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|
| May 7 | E. W. Myers | 1,075 | 1.48 | 2,358 |
| May 7 | do | 1,075 | 1.48 | 2,351 |
| July 1 | B. S. Drane | 870 | .61 | 866 |
| Aug. 13 | M. R. Hall | 804 | .47 | 866 |
| Sept. 3 | B. S. Drane | 765 | .19 | 588 |
| Oct. 15 | do | 717 | .01 | 400 |
| Oct. 15 | do | 709 | .00 | 383 |

DISCHARGE MEASUREMENTS OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN.—*Continued.*

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Feb. 24 | B. S. Drane | 275 | 1,015 | 1.57 | 1.11 | 1,592 |
| Feb. 27 | do | 274 | 1,157 | 2.21 | 1.69 | 2,529 |
| Mar. 23 | do | 275 | 1,558 | 3.45 | 3.26 | 5,383 |
| Mar. 23 | do | 275 | 1,732 | 3.84 | 3.66 | 6,657 |
| Mar. 24 | do | 311 | 2,008 | 3.99 | 4.67 | 8,018 |
| May 3 | do | 133 | 987 | 1.56 | 1.11 | 1,542 |
| July 9 | J. M. Giles | 264 | 806 | 1.07 | .48 | 859 |
| Aug. 9 | B. S. Drane | 275 | 911 | 1.24 | .81 | 1,129 |
| Aug. 9 | do | 275 | 914 | 1.34 | .82 | 1,222 |
| Oct. 17 | do | 275 | 649 | .52 | — .12 | 340 |
| Oct. 17 | do | 275 | 646 | .55 | — .10 | 355 |
| 1905. | | | | | | |
| Feb. 7 | B. S. Drane | 264 | 916 | 1.39 | 0.87 | 1,271 |
| Feb. 7 | do | 264 | 915 | 1.44 | .87 | 1,323 |
| May 15 | W. E. Hall | 266 | 1,263 | 2.76 | 2.19 | 3,486 |
| June 15 | B. S. Drane | 265 | 818 | 1.13 | .55 | 924 |
| Aug. 23 | W. E. Hall | 266 | 983 | 1.51 | 1.01 | 1,487 |
| Dec. 25 | F. A. Murray | 267 | 1,086 | 2.01 | 1.40 | 2,182 |
| 1906. | | | | | | |
| May 25 | O. P. Hall | 267 | 764 | .... | 0.60 | 1,060 |
| Oct. 20 | F. A. Murray | 275 | 1,490 | .... | 3.21 | 6,020 |
| Oct. 20 | do | 275 | 1,460 | .... | 3.06 | 5,770 |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1903.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ..... | 1.00 | 0.60 | 0.70 | 0.20 | 0.00 | 0.00 | 0.10 |
| 2 | ..... | 3.00 | .50 | .70 | .20 | .00 | .00 | .04 |
| 3 | ..... | 1.80 | .50 | .80 | .20 | .00 | .00 | .08 |
| 4 | ..... | 1.70 | .70 | 1.00 | .20 | .00 | .01 | .03 |
| 5 | ..... | 1.30 | .60 | .90 | .20 | .00 | .16 | .04 |
| 6 | ..... | 1.80 | .70 | .80 | .10 | .00 | .15 | .17 |
| 7 | ..... | 2.80 | .80 | .60 | .10 | .05 | .01 | .00 |
| 8 | ..... | 2.10 | .70 | .50 | .10 | .10 | .00 | .01 |
| 9 | 1.40 | 1.60 | .60 | .40 | .10 | .20 | .08 | .05 |
| 10 | 1.30 | 1.40 | .50 | .30 | .10 | .50 | .05 | .14 |
| 11 | 1.30 | 1.90 | .60 | .60 | .30 | .30 | .01 | .10 |
| 12 | 1.20 | 1.50 | .60 | .70 | .20 | .10 | .06 | — .01 |
| 13 | 1.30 | 1.30 | 1.00 | .50 | .20 | .20 | .05 | .10 |
| 14 | 1.30 | 1.10 | 1.70 | .40 | .10 | .05 | .10 | .30 |
| 15 | 1.40 | 1.00 | 1.10 | .40 | .10 | .06 | .09 | .06 |
| 16 | 1.30 | 1.00 | .70 | .50 | .00 | .00 | .10 | .09 |
| 17 | 1.10 | .90 | .70 | .60 | .10 | .00 | .50 | — .09 |
| 18 | 1.10 | .90 | .70 | 1.00 | .80 | .00 | 1.60 | .00 |
| 19 | 1.00 | .80 | .70 | .70 | .40 | .10 | .80 | — .01 |
| 20 | 1.00 | .80 | .60 | .70 | .20 | .13 | .50 | .70 |
| 21 | 1.00 | .80 | .50 | .50 | .20 | .00 | .20 | .90 |
| 22 | .90 | 1.00 | .50 | .40 | .10 | .01 | .20 | .60 |
| 23 | .90 | .80 | .40 | .40 | .10 | .00 | .20 | .40 |
| 24 | .90 | 1.10 | .40 | .30 | .10 | .00 | .20 | .19 |
| 25 | .80 | .80 | .40 | .30 | .10 | — .01 | .01 | .30 |
| 26 | .80 | .70 | .50 | .30 | .10 | — .03 | .12 | .50 |
| 27 | .70 | .70 | .40 | .20 | .00 | .00 | .10 | .40 |
| 28 | .70 | .80 | .30 | .20 | .00 | — .01 | .04 | .30 |
| 29 | .70 | .80 | .30 | .20 | .00 | — .05 | .06 | .30 |
| 30 | .90 | .80 | .50 | .20 | .00 | — .05 | .05 | .30 |
| 31 | 1.10 | ..... | 1.00 | .20 | ..... | .00 | ..... | .19 |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1904-5.

| 1904. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.11 | 0.20 | 1.40 | 1.40 | 1.40 | 1.75 | 1.30 | 0.30 | 0.25 | 0.00 | —0.10 | 0.20 |
| 2 | .12 | .20 | 1.40 | 1.40 | 1.25 | 1.95 | .90 | 1.45 | .50 | — .05 | — .05 | .25 |
| 3 | .30 | .18 | 1.30 | 1.25 | 1.15 | 1.55 | .65 | .95 | .65 | — .10 | — .05 | .30 |
| 4 | .18 | .30 | 1.20 | 1.05 | 1.20 | 1.15 | .50 | .65 | .60 | — .05 | .00 | .30 |
| 5 | .06 | .20 | 1.20 | 1.00 | 1.40 | .95 | .70 | .50 | .50 | — .10 | .25 | .60 |
| 6 | .10 | .15 | 1.00 | .95 | 1.20 | .85 | .50 | .65 | .40 | — .10 | .55 | 1.05 |
| 7 | .04 | .30 | 3.10 | 1.00 | 1.05 | .90 | .50 | .60 | .30 | — .10 | .30 | 1.20 |
| 8 | .12 | 1.80 | 3.70 | 1.00 | .90 | .80 | .45 | .70 | .25 | .00 | .10 | .75 |
| 9 | .11 | 1.40 | 2.40 | .95 | 3.70 | .75 | .50 | .80 | .20 | — .05 | .05 | .50 |
| 10 | .09 | .90 | 1.80 | 1.15 | 2.30 | .60 | 1.00 | .65 | .15 | — .05 | .00 | .45 |
| 11 | .12 | .70 | 1.65 | .95 | 1.70 | .85 | .65 | .75 | .15 | — .05 | .00 | .50 |
| 12 | .20 | .60 | 1.60 | .90 | 1.45 | .75 | .85 | 1.05 | .15 | — .05 | .00 | .55 |
| 13 | .30 | .40 | 1.40 | .90 | 1.35 | .70 | .65 | .80 | .15 | — .10 | .10 | .50 |
| 14 | .30 | .40 | 1.25 | .80 | 1.15 | .55 | .50 | .65 | .20 | — .10 | .55 | .35 |
| 15 | .19 | .40 | 1.25 | .75 | 1.05 | .50 | .35 | .50 | .10 | — .10 | .55 | .20 |
| 16 | .10 | .60 | 1.10 | .80 | 1.00 | .40 | .30 | .65 | .10 | — .10 | .30 | .30 |
| 17 | .30 | .40 | .95 | 1.20 | .90 | .45 | .35 | .60 | .05 | — .10 | .25 | .35 |
| 18 | .70 | .30 | .95 | 1.00 | .85 | .55 | .35 | .55 | .05 | — .10 | .30 | .30 |
| 19 | .50 | .40 | 1.05 | .85 | .95 | .65 | .25 | .40 | .05 | — .10 | .20 | .30 |
| 20 | .30 | .50 | 1.00 | .80 | .85 | .75 | .20 | .55 | .05 | — .10 | .15 | .20 |
| 21 | .30 | .60 | .95 | .80 | .80 | .75 | .20 | .75 | .05 | — .10 | .20 | .10 |
| 22 | .30 | .60 | 2.10 | .80 | .75 | .70 | .70 | .90 | .05 | — .10 | .20 | .20 |
| 23 | 1.00 | 1.70 | 2.10 | .75 | .65 | .55 | .45 | .65 | .00 | — .15 | .25 | .15 |
| 24 | 1.00 | 1.20 | 5.00 | .75 | .60 | .45 | .30 | .75 | .00 | — .10 | .40 | .15 |
| 25 | .90 | .90 | 3.30 | .80 | .60 | .40 | .25 | 1.00 | .00 | — .10 | .30 | .50 |
| 26 | .50 | .90 | 2.50 | .75 | .60 | .50 | .90 | .55 | .00 | — .10 | .20 | .50 |
| 27 | .40 | 1.50 | 2.40 | 1.50 | .70 | .85 | .70 | .45 | .00 | — .10 | .15 | .50 |
| 28 | .30 | 2.20 | 2.30 | 2.25 | .65 | .60 | .40 | .45 | .00 | — .05 | .10 | .70 |
| 29 | .30 | 1.60 | 1.90 | 1.90 | .55 | 1.95 | .45 | .35 | .00 | — .05 | .05 | 1.35 |
| 30 | .30 | ------ | 1.70 | 1.65 | .55 | 1.55 | .50 | .30 | .00 | — .05 | .20 | .80 |
| 31 | .20 | ------ | 1.50 | -------- | .60 | -------- | .45 | .25 | .00 | — .10 | -------- | .55 |
| 1905. | | | | | | | | | | | | |
| 1 | 0.55 | 0.55 | 1.40 | 0.80 | 1.10 | 1.05 | 0.70 | 0.95 | 0.65 | 0.25 | 0.25 | 0.20 |
| 2 | .55 | .60 | 1.35 | .70 | 1.00 | .95 | .70 | .75 | .65 | .20 | .25 | .20 |
| 3 | .70 | .60 | 1.35 | .70 | .80 | .85 | .85 | .70 | .80 | .35 | .25 | 3.40 |
| 4 | .90 | .40 | 1.20 | .70 | .85 | .70 | 1.05 | .70 | .15 | .35 | .20 | 2.60 |
| 5 | .70 | .50 | 1.20 | .70 | .90 | .70 | 2.30 | .70 | .65 | .40 | .20 | 1.30 |
| 6 | .65 | .70 | 1.30 | 1.25 | 1.10 | .65 | .20 | .70 | .60 | .35 | .25 | .80 |
| 7 | 1.15 | .90 | 1.20 | 1.55 | 3.40 | .65 | 1.00 | .70 | .50 | .25 | .30 | .65 |
| 8 | 1.10 | 1.00 | 1.30 | 1.25 | 2.80 | .65 | .80 | 1.15 | .50 | .20 | .25 | .60 |
| 9 | .70 | 2.60 | 1.40 | 1.35 | 2.40 | .65 | .70 | 1.75 | .45 | .25 | .25 | .80 |
| 10 | .70 | 2.40 | 1.90 | 2.20 | 1.75 | .55 | .65 | 1.80 | .45 | .20 | .20 | 2.60 |
| 11 | .80 | 1.90 | 2.40 | 1.75 | 1.85 | .50 | .65 | 2.10 | .40 | .30 | .20 | 1.60 |
| 12 | 1.30 | 1.50 | 1.85 | 2.70 | 1.70 | .50 | 5.50 | 4.40 | .40 | .80 | .15 | 1.15 |
| 13 | 4.00 | 1.50 | 1.70 | 2.40 | 1.60 | .55 | 6.10 | 3.50 | .60 | .60 | .20 | .95 |
| 14 | 2.40 | 2.20 | 1.55 | 1.90 | 2.60 | .70 | 3.10 | 2.80 | .50 | .35 | .20 | .80 |
| 15 | 1.75 | 1.50 | 1.40 | 1.55 | 2.20 | .60 | 2.30 | 2.10 | .40 | .30 | .15 | .80 |
| 16 | 1.15 | 1.25 | 1.20 | 1.40 | 4.20 | .50 | 1.80 | 2.05 | .40 | .25 | .15 | 1.00 |
| 17 | .95 | 1.20 | 1.20 | 1.25 | 3.60 | 2.60 | 1.85 | 1.75 | .30 | .25 | .20 | 1.00 |
| 18 | 1.00 | 1.10 | 1.10 | 1.10 | 2.70 | 3.10 | 1.45 | 1.50 | .35 | .25 | .20 | .90 |
| 19 | 1.05 | 1.00 | 1.05 | 1.00 | 2.00 | 1.75 | 2.70 | 1.40 | .35 | .25 | .15 | .80 |
| 20 | .95 | 2.10 | 1.05 | .95 | 1.75 | 1.55 | 1.70 | 1.25 | .35 | .30 | .20 | .75 |
| 21 | .85 | 4.20 | 1.10 | .90 | 1.50 | 1.40 | 1.35 | 1.20 | .35 | .30 | .25 | .85 |
| 22 | .80 | 3.60 | 1.20 | .95 | 1.35 | 1.20 | 1.35 | 1.15 | .35 | .30 | .25 | 1.80 |
| 23 | .70 | 3.10 | 1.05 | .90 | 1.65 | 1.10 | 1.45 | 1.00 | .35 | .30 | .20 | 1.35 |
| 24 | .60 | 2.40 | .95 | .80 | 1.70 | 1.05 | 1.25 | 1.00 | .30 | .25 | .15 | 1.75 |
| 25 | .65 | 2.00 | .90 | .75 | 1.40 | .90 | 1.15 | 1.05 | .25 | .25 | .15 | 1.50 |
| 26 | .30 | 1.95 | 1.00 | .70 | 1.25 | .85 | 1.00 | 1.25 | .25 | .35 | .15 | 1.15 |
| 27 | .25 | 1.70 | .90 | .80 | 1.30 | .85 | .90 | 1.00 | .20 | .55 | .20 | 1.00 |
| 28 | .25 | 1.50 | .80 | 1.00 | 1.30 | .75 | .90 | .90 | .20 | .50 | .20 | 1.15 |
| 29 | .45 | ------ | .80 | .90 | 1.90 | .70 | 1.20 | .70 | .25 | .40 | .15 | .80 |
| 30 | .55 | ------ | .80 | 1.15 | 1.25 | .70 | 1.15 | .70 | .20 | .30 | .20 | .80 |
| 31 | .55 | ------ | .85 | -------- | 1.25 | -------- | 1.15 | .65 | -------- | .30 | -------- | .70 |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1906-7.

| 1906. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.60 | 2.35 | 1.00 | 2.00 | 0.95 | 0.60 | 0.70 | 1.10 | 3.00 | 2.55 | 1.00 | 1.15 |
| 2 | .55 | 2.10 | 1.00 | 1.70 | 1.00 | .70 | .70 | 1.20 | 2.25 | 2.60 | .95 | 1.10 |
| 3 | .55 | 1.85 | 1.05 | 1.50 | 1.05 | .95 | .60 | 2.70 | 1.90 | 3.40 | .95 | 1.05 |
| 4 | 3.80 | 1.65 | 2.15 | 1.35 | 1.50 | .70 | .70 | 2.00 | 3.20 | 4.40 | .90 | 1.05 |
| 5 | 2.00 | 1.60 | 1.50 | 1.25 | 3.10 | .70 | 1.00 | 2.10 | 3.25 | 2.90 | .90 | 1.00 |
| 6 | 1.45 | 1.50 | 1.35 | 1.25 | 3.00 | .60 | .70 | 1.50 | 2.65 | 2.40 | .85 | 1.00 |
| 7 | 1.15 | 1.35 | 1.20 | 1.40 | 2.95 | .60 | .75 | 1.35 | 2.10 | 2.50 | .80 | 1.00 |
| 8 | 1.00 | 1.25 | 1.15 | 1.25 | 2.45 | .60 | .95 | 1.15 | 2.10 | 2.00 | .80 | 1.00 |
| 9 | 1.00 | 1.20 | 1.25 | 1.20 | 1.90 | .50 | .90 | 1.05 | 1.90 | 1.90 | .80 | .90 |
| 10 | .85 | 1.15 | 1.15 | 1.40 | 1.65 | .60 | 1.10 | .95 | 1.50 | 1.65 | .75 | .90 |
| 11 | .70 | 1.10 | 1.00 | 1.50 | 1.45 | .55 | .75 | .80 | 1.40 | 1.50 | .75 | 1.00 |
| 12 | .90 | 1.05 | .95 | 1.25 | 1.30 | .50 | .60 | .75 | 1.80 | 1.35 | 1.10 | 1.20 |
| 13 | 1.35 | 1.20 | .95 | 1.15 | 1.20 | 1.00 | .55 | .80 | 1.35 | 1.30 | .95 | 1.00 |
| 14 | 1.15 | 1.30 | .90 | 1.10 | 1.10 | 3.50 | .50 | 1.30 | 1.30 | 1.25 | .80 | .95 |
| 15 | 1.70 | 1.35 | 1.00 | 5.00 | 1.00 | 1.50 | .55 | 1.90 | 1.20 | 1.20 | .75 | .90 |
| 16 | 1.40 | 1.45 | 3.20 | 2.80 | 1.00 | 2.90 | 1.80 | 1.65 | 1.00 | 1.15 | .75 | .90 |
| 17 | 1.30 | 1.30 | 2.20 | 2.10 | .90 | 2.00 | 1.80 | 2.60 | 1.00 | 1.30 | .75 | .90 |
| 18 | 1.20 | 1.15 | 1.75 | 1.80 | .90 | 1.50 | 1.85 | 2.20 | 1.20 | 1.50 | 1.00 | 1.35 |
| 19 | 1.25 | 1.10 | 1.55 | 1.60 | .85 | 1.20 | 1.35 | 1.80 | 8.20 | 3.50 | 9.50 | 1.35 |
| 20 | 1.20 | 1.05 | 1.70 | 1.45 | .80 | 1.10 | 1.70 | 1.65 | 4.00 | 3.20 | 5.60 | 1.20 |
| 21 | 1.10 | 1.00 | 1.70 | 1.30 | .80 | 1.00 | 1.90 | 1.60 | 2.70 | 3.00 | 3.20 | 1.30 |
| 22 | 1.00 | 1.25 | 1.50 | 1.25 | .70 | .95 | 1.50 | 1.70 | 2.60 | 1.90 | 2.35 | 1.35 |
| 23 | 15.20 | 1.50 | 1.40 | 1.20 | .70 | .95 | 1.50 | 1.50 | 2.20 | 1.75 | 2.00 | 1.25 |
| 24 | 4.60 | 1.30 | 1.30 | 1.10 | .65 | .80 | 1.30 | 1.35 | 1.90 | 1.65 | 1.75 | 1.00 |
| 25 | 3.00 | 1.20 | 1.35 | 1.00 | .60 | 1.90 | 1.00 | 1.20 | 1.50 | 1.50 | 1.60 | .75 |
| 26 | 2.50 | 1.20 | 1.35 | 1.00 | .60 | 1.50 | 1.20 | 1.05 | 1.50 | 1.40 | 1.50 | .80 |
| 27 | 2.50 | 1.30 | 1.35 | .95 | .90 | 1.05 | 1.80 | 2.20 | 1.40 | 1.30 | 1.40 | 1.00 |
| 28 | 2.30 | 1.20 | 1.40 | .90 | 1.45 | .80 | 1.10 | 2.10 | 2.25 | 1.20 | 1.30 | 4.30 |
| 29 | 2.25 | ..... | 1.40 | .90 | .95 | .70 | 1.30 | 2.80 | 2.55 | 1.15 | 1.25 | 4.00 |
| 30 | 2.30 | ..... | 1.45 | .85 | .80 | .65 | 1.25 | 4.10 | 3.20 | 1.10 | 1.20 | 2.90 |
| 31 | 2.30 | ..... | 2.50 | ..... | .70 | ..... | 1.10 | 5.40 | ..... | 1.05 | ..... | 2.30 |
| 1907. | | | | | | | | | | | | |
| 1 | 2.80 | 0.70 | 1.35 | 0.90 | 1.20 | 0.80 | 1.10 | 0.75 | 0.30 | 0.70 | 0.30 | 0.70 |
| 2 | 2.25 | .85 | 1.90 | .90 | 1.20 | 3.50 | .95 | .65 | .30 | .60 | .30 | .65 |
| 3 | 1.85 | .90 | 2.00 | .75 | 1.10 | 3.20 | 1.05 | .55 | .50 | .50 | .40 | .60 |
| 4 | 1.70 | .90 | 1.90 | .70 | 1.50 | 2.90 | 1.00 | .50 | .60 | .50 | .55 | .55 |
| 5 | 1.60 | 1.10 | 1.70 | .70 | 1.65 | 2.10 | .80 | .50 | .55 | 1.20 | .40 | .50 |
| 6 | 1.45 | 1.20 | 1.20 | .75 | 1.40 | 1.70 | .75 | .45 | .45 | 1.05 | .40 | .45 |
| 7 | 1.40 | 1.00 | 1.10 | 1.50 | 1.90 | 1.40 | .70 | .55 | .40 | .80 | .40 | .40 |
| 8 | 1.30 | .90 | 1.20 | 1.40 | 1.70 | 1.55 | .65 | .75 | .40 | .70 | .35 | .45 |
| 9 | 1.25 | .90 | 1.40 | 1.50 | 1.50 | 3.60 | .60 | 1.00 | .60 | .65 | .35 | .50 |
| 10 | 1.20 | .85 | 1.40 | 1.50 | 1.40 | 2.75 | .60 | .75 | .55 | .60 | .35 | .65 |
| 11 | 1.15 | .85 | 2.80 | 1.30 | 1.30 | 2.25 | .55 | .55 | .50 | .50 | .30 | 1.60 |
| 12 | 1.15 | .80 | 2.15 | 1.40 | 1.25 | 2.00 | .65 | .50 | .80 | .50 | .40 | 1.15 |
| 13 | 1.05 | .70 | 1.75 | 1.20 | 1.15 | 1.70 | 1.80 | .45 | .50 | .45 | .35 | .95 |
| 14 | 1.00 | .70 | 1.60 | 1.10 | 1.10 | 2.40 | 1.45 | .40 | .45 | .40 | .30 | .80 |
| 15 | 1.00 | .70 | 1.70 | 1.00 | 1.00 | 2.00 | 1.55 | .35 | .35 | .40 | .30 | .90 |
| 16 | 1.00 | .65 | 1.75 | 1.00 | .95 | 1.70 | 1.40 | .30 | .30 | .40 | .30 | 1.40 |
| 17 | .95 | .65 | 1.50 | 1.00 | .90 | 1.50 | 1.15 | .35 | .35 | .35 | .60 | 1.10 |
| 18 | .95 | .65 | 1.35 | 1.00 | .85 | 1.15 | 1.20 | .50 | .35 | .35 | .60 | .90 |
| 19 | .95 | .65 | 1.30 | 1.20 | .80 | 1.10 | 2.15 | .75 | .40 | .40 | .65 | .70 |
| 20 | .90 | .65 | 1.20 | 1.70 | .75 | 1.00 | 1.20 | .50 | .50 | .35 | .70 | .70 |
| 21 | .90 | .60 | 1.15 | 1.40 | .70 | 1.00 | 1.00 | .55 | .95 | .35 | .60 | .65 |
| 22 | .80 | .60 | 1.05 | 1.20 | .70 | .95 | .85 | .50 | .90 | .35 | .65 | .65 |
| 23 | .80 | .55 | 1.00 | 1.50 | .65 | 1.00 | .75 | .65 | 3.00 | .30 | .90 | .80 |
| 24 | .80 | .55 | .95 | 2.20 | .65 | 1.10 | .65 | .90 | 3.45 | .30 | 1.60 | 2.20 |
| 25 | .75 | .75 | .90 | 1.70 | .65 | 1.20 | .60 | 1.00 | 1.75 | .30 | 1.70 | 1.45 |
| 26 | .75 | 1.35 | .85 | 1.20 | .85 | 1.00 | .60 | .90 | 1.20 | .30 | 1.30 | 1.10 |
| 27 | .80 | 1.30 | .80 | 1.40 | .85 | 1.10 | .85 | .80 | .90 | .30 | 1.00 | 1.00 |
| 28 | .75 | 1.35 | .80 | 1.55 | .65 | .90 | .65 | .70 | .80 | .30 | .90 | .95 |
| 29 | .65 | ..... | .75 | 1.35 | .65 | 1.45 | .55 | .45 | .80 | .30 | .85 | .90 |
| 30 | .65 | ..... | .75 | 1.35 | .55 | 1.45 | 1.50 | .40 | .80 | .30 | .75 | 1.50 |
| 31 | .65 | ..... | .75 | ..... | .55 | ..... | .90 | .40 | ..... | .30 | ..... | 3.10 |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.90 | 0.90 | 1.80 | 1.45 | 1.55 | 1.10 | .50 | .90 | .90 | 0.35 |
| 2 | 1.50 | .85 | 2.20 | 1.65 | 1.40 | 1.00 | .80 | .90 | .80 | .25 |
| 3 | 1.30 | .80 | 2.10 | 2.10 | 1.30 | .90 | .65 | .65 | .75 | .20 |
| 4 | 1.15 | .95 | 1.95 | 1.55 | 1.20 | 1.10 | 1.00 | .65 | .65 | .20 |
| 5 | 2.30 | 1.10 | 1.80 | 1.45 | 1.15 | 1.25 | 1.00 | .75 | .60 | .20 |
| 6 | 2.20 | 1.10 | 2.30 | 1.40 | 1.15 | 1.00 | 1.25 | .85 | .80 | .20 |
| 7 | 1.75 | 1.20 | 2.25 | 1.35 | 1.40 | .90 | 2.00 | 1.25 | .70 | .15 |
| 8 | 1.60 | 1.20 | 2.20 | 1.25 | 2.10 | 1.10 | 4.30 | 1.00 | .70 | .15 |
| 9 | 1.35 | 1.10 | 1.90 | 1.20 | 1.55 | .95 | 2.25 | 1.25 | .75 | .20 |
| 10 | 1.20 | 1.10 | 1.70 | 1.20 | 1.40 | .80 | 1.90 | 1.10 | .60 | .75 |
| 11 | 1.00 | 1.35 | 1.55 | 1.10 | 1.30 | .90 | 1.40 | .85 | .55 | 1.80 |
| 12 | 9.10 | 1.75 | 2.00 | 2.10 | 1.15 | .80 | 1.05 | .80 | .50 | .90 |
| 13 | 4.20 | 2.65 | 2.70 | 1.00 | 1.15 | .70 | .90 | .60 | .45 | .65 |
| 14 | 2.80 | 3.20 | 2.20 | 1.00 | 1.10 | .70 | .90 | .50 | .45 | .50 |
| 15 | 2.20 | 4.90 | 1.90 | .95 | 1.10 | 2.20 | 1.00 | .50 | .40 | .45 |
| 16 | 1.95 | 4.40 | 1.80 | 1.40 | 1.00 | 2.00 | .80 | .45 | .40 | .40 |
| 17 | 1.85 | 3.80 | 1.65 | 2.20 | 1.10 | 1.30 | .80 | .45 | .35 | .30 |
| 18 | 1.65 | 2.80 | 1.60 | 1.75 | 1.10 | 1.00 | .70 | .55 | .35 | .30 |
| 19 | 1.50 | 2.00 | 1.65 | 1.60 | 1.30 | .90 | .70 | .55 | .30 | .30 |
| 20 | 1.40 | 1.85 | 1.65 | 1.45 | 1.90 | .80 | .55 | 1.15 | .30 | .25 |
| 21 | 1.30 | 1.65 | 2.60 | 1.25 | 2.00 | .80 | .55 | .65 | .30 | .25 |
| 22 | 1.25 | 1.55 | 2.60 | 1.15 | 1.60 | .90 | .50 | .70 | .30 | .25 |
| 23 | 1.25 | 1.40 | 2.50 | 1.10 | 1.30 | 1.00 | .70 | .90 | .30 | .40 |
| 24 | 1.25 | 1.30 | 4.00 | 1.00 | 1.30 | .95 | 1.00 | 1.00 | .25 | 6.80 |
| 25 | 1.00 | 1.20 | 3.30 | 1.15 | 1.00 | .70 | .70 | 1.45 | .20 | 2.50 |
| 26 | 1.05 | 1.40 | 2.50 | 5.00 | 1.00 | 1.00 | .60 | 5.50 | .20 | 2.00 |
| 27 | 1.35 | 1.20 | 2.10 | 2.80 | 1.30 | .70 | .50 | 2.50 | .20 | 1.45 |
| 28 | 1.30 | 1.20 | 1.90 | 2.00 | 1.35 | .55 | 1.00 | 1.70 | .20 | 1.20 |
| 29 | 1.10 | 1.10 | 1.70 | 1.80 | 1.35 | .55 | 1.25 | 1.40 | .30 | 2.30 |
| 30 | 1.10 | ..... | 1.65 | 1.55 | 2.10 | .50 | 1.20 | 1.20 | .50 | 3.50 |
| 31 | .90 | ..... | 1.50 | ..... | 1.90 | ..... | 1.40 | 1.00 | ..... | 2.45 |

RATING TABLE FOR NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FROM MAY 9 TO DECEMBER 31, 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| —0.1 | 312 | .7 | 1,075 | 1.5 | 2,395 | 2.3 | 4,030 |
| .0 | 388 | .8 | 1,200 | 1.6 | 2,595 | 2.4 | 4,235 |
| + .1 | 469 | .9 | 1,335 | 1.7 | 2,800 | 2.5 | 4,440 |
| .2 | 557 | 1.0 | 1,485 | 1.8 | 3,005 | 2.6 | 4,645 |
| .3 | 649 | 1.1 | 1,645 | 1.9 | 3,210 | 2.7 | 4,850 |
| .4 | 746 | 1.2 | 1,815 | 2.0 | 3,415 | 2.8 | 5,055 |
| .5 | 850 | 1.3 | 2,000 | 2.1 | 3,620 | 2.9 | 5,260 |
| .6 | 960 | 1.4 | 2,195 | 2.2 | 3,825 | 3.0 | 5,465 |

RATING TABLE FOR NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| —0.15 | 320 | 0.8 | 1,195 | 1.9 | 2,780 | 3.0 | 4,860 |
| — .1 | 355 | .9 | 1,305 | 2.0 | 2,955 | 3.2 | 5,270 |
| — .05 | 390 | 1.0 | 1,420 | 2.1 | 3,135 | 3.4 | 5,680 |
| .0 | 430 | 1.1 | 1,545 | 2.2 | 3,315 | 3.6 | 6,100 |
| .1 | 510 | 1.2 | 1,675 | 2.3 | 3,500 | 3.8 | 6,530 |
| .2 | 595 | 1.3 | 1,815 | 2.4 | 3,685 | 4.0 | 6,960 |
| .3 | 685 | 1.4 | 1,965 | 2.5 | 3,875 | 4.2 | 7,390 |
| .4 | 780 | 1.5 | 2,120 | 2.6 | 4,070 | 4.4 | 7,820 |
| .5 | 880 | 1.6 | 2,280 | 2.7 | 4,265 | 4.6 | 8,250 |
| .6 | 980 | 1.7 | 2,445 | 2.8 | 4,460 | 4.8 | 8,690 |
| .7 | 1,085 | 1.8 | 2,610 | 2.9 | 4,660 | 5.0 | 9,130 |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon eighteen discharge measurements made during 1903 and 1904. It is well defined between gage heights —0.15 foot and 1.10 feet.

RATING TABLE FOR NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.00 | 430 | 1.20 | 1,770 | 2.40 | 3,940 | 4.20 | 7,690 |
| .10 | 515 | 1.30 | 1,930 | 2.50 | 4,140 | 4.40 | 8,130 |
| .20 | 600 | 1.40 | 2,100 | 2.60 | 4,340 | 4.60 | 8,570 |
| .30 | 690 | 1.50 | 2,270 | 2.70 | 4,540 | 4.80 | 9,010 |
| .40 | 780 | 1.60 | 2,440 | 2.80 | 4,740 | 5.00 | 9,450 |
| .50 | 880 | 1.70 | 2,620 | 2.90 | 4,940 | 5.20 | 9,890 |
| .60 | 990 | 1.80 | 2,800 | 3.00 | 5,140 | 5.40 | 10,330 |
| .70 | 1,100 | 1.90 | 2,980 | 3.20 | 5,540 | 5.60 | 10,790 |
| .80 | 1,220 | 2.00 | 3,170 | 3.40 | 5,960 | 5.80 | 11,250 |
| .90 | 1,350 | 2.10 | 3,360 | 3.60 | 6,380 | 6.00 | 11,710 |
| 1.00 | 1,480 | 2.20 | 3,550 | 3.80 | 6,810 | | |
| 1.10 | 1,620 | 2.30 | 3,740 | 4.00 | 7,250 | | |

NOTE.—The above table is based on six discharge measurements made during 1905. It is fairly well defined between gage heights 0.5 foot and 2.2 feet. Beyond these limits it is uncertain.

RATING TABLE FOR NOLICHUCKY RIVER NEAR GREENEVILLE, TENN., FOR 1906 AND 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.30 | 735 | 0.90 | 1,450 | 1.50 | 2,400 | 2.10 | 3,540 |
| .40 | 835 | 1.00 | 1,590 | 1.60 | 2,580 | 2.20 | 3,750 |
| .50 | 940 | 1.10 | 1,740 | 1.70 | 2,760 | 2.30 | 3,960 |
| .60 | 1,060 | 1.20 | 1,900 | 1.80 | 2,950 | 2.40 | 4,180 |
| .70 | 1,180 | 1.30 | 2,060 | 1.90 | 3,140 | 2.50 | 4,400 |
| .80 | 1,310 | 1.40 | 2,230 | 2.00 | 3,340 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on three discharge measurements made during 1906, and on the general form of previous curves. There has been considerable change in the conditions of flow at this station, but the above rating is fairly good. Above gage height 2.3 feet the rating curve is a tangent, the difference being 220 per tenth.

ESTIMATED MONTHLY DISCHARGE OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN.

[Drainage area, 1,099 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| May 9-31 | 2,195 | 1,075 | 1,590 | 1.45 | 1.24 |
| June | 5,465 | 1,075 | 2,033 | 1.85 | 2.06 |
| July | 2,800 | 649 | 1,037 | .94 | 1.09 |
| August | 1,485 | 557 | 886 | .81 | .93 |
| September | 1,200 | 388 | 521 | .47 | .53 |
| October | 850 | 350 | 434 | .40 | .46 |
| November | 2,595 | 388 | 576 | .52 | .58 |
| December | 1,335 | 312 | 571 | .52 | .60 |
| 1904. | | | | | |
| January | 1,420 | 462 | 711 | 0.647 | 0.746 |
| February | 3,315 | 553 | 1,210 | 1.10 | 1.19 |
| March | 9,130 | 1,363 | 2,778 | 2.53 | 2.92 |
| April | 3,408 | 1,140 | 1,549 | 1.41 | 1.57 |
| May | 6,315 | 930 | 1,631 | 1.48 | 1.71 |
| June | 2,868 | 780 | 1,313 | 1.19 | 1.33 |
| July | 1,815 | 595 | 931 | .847 | .976 |
| August | 2,043 | 640 | 1,045 | .951 | 1.10 |
| September | 1,033 | 430 | 573 | .521 | .581 |
| October | 430 | 320 | 369 | .336 | .387 |
| November | 930 | 355 | 588 | .535 | .597 |
| December | 1,890 | 510 | 869 | .791 | .912 |
| The year | 9,130 | 320 | 1,131 | 1.03 | 14.01 |
| 1905. | | | | | |
| January | 7,250 | 645 | 1,513 | 1.38 | 1.59 |
| February | 7,690 | 780 | 2,604 | 2.37 | 2.47 |
| March | 3,940 | 1,220 | 1,872 | 1.70 | 1.96 |
| April | 4,540 | 1,100 | 1,852 | 1.69 | 1.89 |
| May | 7,690 | 1,220 | 2,909 | 2.65 | 3.06 |
| June | 5,340 | 880 | 1,543 | 1.40 | 1.56 |
| July | 11,940 | 1,045 | 2,650 | 2.41 | 2.78 |
| August | 8,130 | 1,045 | 2,230 | 2.03 | 2.34 |
| September | 1,220 | 600 | 815 | .742 | .828 |
| October | 1,220 | 600 | 722 | .657 | .757 |
| November | 690 | 558 | 604 | .550 | .614 |
| December | 5,960 | 600 | 1,820 | 1.66 | 1.91 |
| The year | 11,940 | 558 | 1,761 | 1.60 | 21.76 |
| 1906. | | | | | |
| January | 32,300 | 1,000 | 3,760 | 3.42 | 3.94 |
| February | 4,070 | 1,590 | 2,180 | 1.98 | 2.06 |
| March | 5,940 | 1,450 | 2,360 | 2.15 | 2.48 |
| April | 9,900 | 1,380 | 2,460 | 2.24 | 2.50 |
| May | 5,720 | 1,060 | 2,110 | 1.92 | 2.21 |
| June | 6,600 | 940 | 1,840 | 1.67 | 1.86 |
| July | 3,140 | 940 | 1,820 | 1.65 | 1.90 |
| August | 10,800 | 1,240 | 3,070 | 2.79 | 3.22 |
| September | 16,900 | 1,590 | 4,020 | 3.65 | 4.07 |
| October | 8,580 | 1,660 | 3,370 | 3.06 | 3.53 |
| November | 19,800 | 1,240 | 2,850 | 2.59 | 2.89 |
| December | 8,360 | 1,240 | 2,270 | 2.06 | 2.38 |
| The year | 32,300 | 940 | 2,680 | 2.43 | 33.04 |

NOTE.—Values for 1906 are good.

ESTIMATED MONTHLY DISCHARGE OF NOLICHUCKY RIVER NEAR GREENEVILLE, TENN.—*Continued.*

[Drainage area, 1,099 square miles.]

| Month. | Discharge in Second-feet. | | | | Depth in Inches on Drainage Area. |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Per Square Mile. | |
| 1907. | | | | | |
| January | 5,060 | 1,120 | 1,860 | 1.69 | 1.95 |
| February | 2,140 | 1,000 | 1,380 | 1.25 | 1.30 |
| March | 5,060 | 1,240 | 2,210 | 2.01 | 2.32 |
| April | 3,750 | 1,180 | 2,000 | 1.82 | 2.03 |
| May | 3,140 | 1,000 | 1,680 | 1.53 | 1.76 |
| June | 6,820 | 1,310 | 2,920 | 2.65 | 2.96 |
| July | 3,640 | 1,000 | 1,600 | 1.45 | 1.67 |
| August | 1,590 | 735 | 1,060 | .964 | 1.11 |
| September | 6,490 | 735 | 1,440 | 1.31 | 1.46 |
| October | 1,900 | 735 | 935 | .850 | .98 |
| November | 2,760 | 735 | 1,130 | 1.03 | 1.15 |
| December | 5,720 | 835 | 1,630 | 1.48 | 1.71 |
| The year | 6,820 | 735 | 1,650 | 1.50 | 20.40 |

## NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN.

This station was established September 6, 1900, and was located on the highway bridge about 1 mile above Chucky Valley Post-office.

The wire gage was suspended from the upstream side of the bridge, and the stage of the water surface was referred to a horizontal gage fastened to the guard-rail of the bridge.

The section presented at this point was very favorable for the making of accurate measurements of discharge, as the course of the river was straight for a long distance above and below the station, the bed of the stream was very smooth, the current velocity neither excessive nor too small, and the banks high and not subject to overflow.

This station was maintained until the great flood of May, 1901, swept away the bridge, which has not since been replaced.

DISCHARGE MEASUREMENTS OF NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1900. | | | |
| Sept. 5 | E. W. Myers | 2.00 | 302 |
| Sept. 20 | L. V. Branch | 2.18 | 442 |
| Oct. 15 | ....do | 2.00 | 378 |
| Nov. 10 | ....do | 2.90 | 919 |
| 1901. | | | |
| Mar. 31 | R. E. Shuford | 5.18 | 5,356 |
| Apr. 14 | E. W. Myers | 4.45 | 3,022 |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN., FOR 1900.

| Day. | Sept. | Oct. | Nov. | Dec. | Day. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 1.80 | 2.50 | 3.10 | 17 | 3.10 | 2.00 | 2.50 | 2.70 |
| 2 | ------ | 1.90 | 2.60 | 3.20 | 18 | 2.60 | 1.90 | 2.50 | 2.70 |
| 3 | ------ | 1.90 | 3.00 | 3.00 | 19 | 2.30 | 2.00 | 2.40 | 2.60 |
| 4 | ------ | 2.00 | 5.20 | 4.80 | 20 | 2.10 | 1.90 | 2.40 | 2.60 |
| 5 | 2.00 | 3.30 | 4.00 | 3.30 | 21 | 2.00 | 1.90 | 2.30 | 2.90 |
| 6 | 2.00 | 3.20 | 3.50 | 3.50 | 22 | 2.00 | 1.90 | 2.50 | 2.80 |
| 7 | 2.00 | 2.50 | 3.20 | 3.40 | 23 | 2.20 | 9.30 | 2.50 | 2.90 |
| 8 | 2.00 | 2.30 | 2.50 | 3.30 | 24 | 2.20 | 5.20 | 2.50 | 3.00 |
| 9 | 1.80 | 2.30 | 3.00 | 3.30 | 25 | 2.10 | 3.90 | 2.70 | 3.00 |
| 10 | 1.80 | 2.20 | 2.90 | 3.20 | 26 | 2.10 | 3.30 | 6.50 | 3.20 |
| 11 | 1.80 | 2.10 | 2.80 | 3.10 | 27 | 2.10 | 3.10 | 4.50 | 3.10 |
| 12 | 1.80 | 2.10 | 2.80 | 3.00 | 28 | 2.00 | 2.90 | 3.40 | 3.00 |
| 13 | 1.80 | 2.10 | 2.70 | 3.00 | 29 | 2.00 | 2.80 | 3.40 | 2.90 |
| 14 | 2.60 | 2.00 | 2.70 | 2.90 | 30 | 1.80 | 2.70 | 3.20 | 3.00 |
| 15 | 2.30 | 2.00 | 2.60 | 2.90 | 31 | ------ | 2.60 | ------ | 3.20 |
| 16 | 4.70 | 2.00 | 2.50 | 2.80 | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | Day. | Jan. | Feb. | Mar. | Apr. | May. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.20 | 3.20 | 3.10 | 4.10 | 4.30 | 17 | 3.70 | 3.30 | 3.30 | 3.20 | 3.30 |
| 2 | 3.30 | 3.00 | 2.80 | 6.80 | 4.10 | 18 | 3.50 | 3.40 | 3.20 | 3.10 | 3.30 |
| 3 | 3.50 | 3.30 | 2.80 | 8.60 | 4.10 | 19 | 3.20 | 3.20 | 3.10 | 3.20 | 3.40 |
| 4 | 3.30 | 3.20 | 2.80 | 6.40 | 4.80 | 20 | 3.30 | 3.30 | 3.30 | 4.60 | 3.40 |
| 5 | 3.10 | 3.30 | 3.30 | 5.30 | 4.00 | 21 | 3.40 | 3.30 | 3.30 | 3.40 | 3.50 |
| 6 | 3.00 | 3.30 | 3.20 | 4.90 | 3.80 | 22 | 3.20 | 3.30 | 3.40 | 3.30 | ------ |
| 7 | 3.00 | 3.40 | 2.90 | 4.70 | 3.60 | 23 | 3.50 | 3.40 | 3.40 | 3.30 | ------ |
| 8 | 3.20 | 3.40 | 3.00 | 4.60 | 3.60 | 24 | 3.30 | 3.20 | 3.20 | 3.40 | ------ |
| 9 | 3.00 | 4.00 | 3.30 | 4.40 | 4.00 | 25 | 3.30 | 3.40 | 3.30 | 3.80 | ------ |
| 10 | 2.90 | 4.20 | 3.30 | 4.20 | 3.80 | 26 | 3.20 | 3.30 | 8.00 | 4.40 | ------ |
| 11 | 3.00 | 3.90 | 4.70 | 4.00 | 3.80 | 27 | 3.20 | 3.20 | 5.30 | 4.50 | ------ |
| 12 | 3.60 | 3.80 | 3.80 | 3.80 | 3.70 | 28 | 3.30 | 3.20 | 5.30 | 4.40 | ------ |
| 13 | 5.20 | 3.60 | 3.50 | 3.00 | 3.60 | 29 | 3.30 | ------ | 4.50 | 4.50 | ------ |
| 14 | 4.30 | 3.40 | 3.30 | 3.20 | 3.50 | 30 | 3.20 | ------ | 4.60 | 4.40 | ------ |
| 15 | 4.00 | 3.30 | 3.30 | 3.10 | 3.40 | 31 | 3.30 | ------ | 4.40 | ------ | ------ |
| 16 | 3.90 | 3.40 | 3.40 | 3.20 | 3.40 | | | | | | |

RATING TABLE FOR NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN., FOR 1900 AND 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.8 | 270 | 4.4 | 2,925 | 7.0 | 12,650 | 9.6 | 23,050 |
| 1.9 | 305 | 4.5 | 3,150 | 7.1 | 13,050 | 9.7 | 23,450 |
| 2.0 | 340 | 4.6 | 3,400 | 7.2 | 13,450 | 9.8 | 23,850 |
| 2.1 | 390 | 4.7 | 3,675 | 7.3 | 13,850 | 9.9 | 24,250 |
| 2.2 | 440 | 4.8 | 3,950 | 7.4 | 14,250 | 10.0 | 24,650 |
| 2.3 | 500 | 4.9 | 4,300 | 7.5 | 14,650 | 10.1 | 25,050 |
| 2.4 | 560 | 5.0 | 4,650 | 7.6 | 15,050 | 10.2 | 25,450 |
| 2.5 | 625 | 5.1 | 5,050 | 7.7 | 15,450 | 10.3 | 25,850 |
| 2.6 | 695 | 5.2 | 5,450 | 7.8 | 15,850 | 10.4 | 26,250 |
| 2.7 | 765 | 5.3 | 5,850 | 7.9 | 16,250 | 10.5 | 26,650 |
| 2.8 | 840 | 5.4 | 6,250 | 8.0 | 16,650 | 10.6 | 27,050 |
| 2.9 | 920 | 5.5 | 6,650 | 8.1 | 17,050 | 10.7 | 27,450 |
| 3.0 | 1,000 | 5.6 | 7,050 | 8.2 | 17,450 | 10.8 | 27,850 |
| 3.1 | 1,085 | 5.7 | 7,450 | 8.3 | 17,850 | 10.9 | 28,250 |
| 3.2 | 1,175 | 5.8 | 7,850 | 8.4 | 18,250 | 11.0 | 28,650 |
| 3.3 | 1,275 | 5.9 | 8,250 | 8.5 | 18,650 | 11.1 | 29,050 |
| 3.4 | 1,385 | 6.0 | 8,650 | 8.6 | 19,050 | 11.2 | 29,450 |
| 3.5 | 1,505 | 6.1 | 9,050 | 8.7 | 19,450 | 11.3 | 29,850 |
| 3.6 | 1,630 | 6.2 | 9,450 | 8.8 | 19,850 | 11.4 | 30,250 |
| 3.7 | 1,770 | 6.3 | 9,850 | 8.9 | 20,250 | 11.5 | 30,650 |
| 3.8 | 1,910 | 6.4 | 10,250 | 9.0 | 20,650 | 11.6 | 31,050 |
| 3.9 | 2,060 | 6.5 | 10,650 | 9.1 | 21,050 | 11.7 | 31,450 |
| 4.0 | 2,210 | 6.6 | 11,050 | 9.2 | 21,450 | 11.8 | 31,850 |
| 4.1 | 2,370 | 6.7 | 11,450 | 9.3 | 21,850 | 11.9 | 32,250 |
| 4.2 | 2,540 | 6.8 | 11,850 | 9.4 | 22,250 | 12.0 | 32,650 |
| 4.3 | 2,725 | 6.9 | 12,250 | 9.5 | 22,650 | | |

ESTIMATED MONTHLY DISCHARGE OF NOLICHUCKY RIVER NEAR CHUCKY VALLEY, TENN.

[Drainage area, 817 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-Feet per Square Mile. | Depth in Inches. | Inches. |
| 1900. | | | | | | | |
| September* | ------ | ----- | 536 | 27,642 | 0.656 | 0.63 | 3.08 |
| October | 21,850 | 270 | 1,444 | 88,788 | 1.767 | 2.04 | 5.33 |
| November | 10,650 | 500 | 1,433 | 85,270 | 1.754 | 1.96 | 3.89 |
| December | 3,950 | 695 | 1,173 | 72,125 | 1.435 | 1.65 | 3.40 |
| 1901. | | | | | | | |
| January | 5,450 | 920 | 1,490 | 91,617 | 1.823 | 2.09 | 3.84 |
| February | 2,540 | 1,000 | 1,413 | 78,474 | 1.729 | 1.81 | 2.03 |
| March | 16,650 | 840 | 2,280 | 140,192 | 2.790 | 3.22 | 4.37 |
| April | 19,050 | 1,000 | 3,457 | 205,706 | 4.231 | 4.75 | 5.12 |
| May† | ------ | ----- | 1,868 | 77,807 | 2.286 | 1.79 | 6.92 |

*26 days.

†May 1 to 21. Does not include great May flood, which washed bridge and gage away.

Note on rainfall for May, 1901: This does not contain any record from station in mountains of North Carolina for this month, where the rainfall was very great from May 18 to 23, causing greatest floods ever known in most of the rivers draining the region.

## NORTH TOE RIVER AT SPRUCE PINE, N. C.

This station was established on June 19, 1907. It is located at a suspension footbridge, about 600 feet west of the railroad station at Spruce Pine.

The gage is a vertical rod attached to a special timber, which is spiked to a tree on the right bank, about 200 feet above the footbridge.

Discharge measurements are made from the bridge, which is about 15 feet above the water. The banks are high, but the right one may overflow at high floods. The current is partly sluggish and the bed is sandy and probably shifting.

The bench mark is a nail driven in the root of the tree to which the gage is attached; elevation, 3.00 feet.

DISCHARGE MEASUREMENTS OF NORTH TOE RIVER AT SPRUCE PINE, N. C., IN 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| June 19 | Warren E. Hall | 85 | 211 | 1.17 | 0.98 | 248 |
| June 20 | do | 85 | 220 | 1.13 | .98 | 248 |
| Aug. 6 | do | 82 | 186 | .83 | .79 | 154 |
| Aug. 6 | B. M. Hall, Jr. | 82 | 186 | .81 | .79 | 151 |
| Sept. 4 | do | 82 | 181 | .93 | .81 | 168 |

DAILY GAGE HEIGHT, IN FEET, OF NORTH TOE RIVER AT SPRUCE PINE, N. C., FOR 1907.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | | 1.10 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 |
| 2 | | 1.10 | 1.00 | .80 | .80 | .90 | .80 |
| 3 | | 1.10 | 1.00 | .80 | .80 | .80 | .80 |
| 4 | | 1.00 | 1.00 | .80 | .80 | .80 | .80 |
| 5 | | 1.00 | .90 | .80 | 1.10 | .70 | .80 |
| 6 | | 1.00 | .90 | .80 | .80 | .70 | .80 |
| 7 | | 1.00 | .80 | .80 | .80 | .70 | .80 |
| 8 | | 1.00 | .80 | .80 | .80 | .70 | .80 |
| 9 | | 1.00 | .80 | .80 | .80 | .70 | 1.40 |
| 10 | | 1.00 | .90 | .80 | .80 | .70 | 1.20 |
| 11 | | 1.00 | .90 | 1.80 | .80 | .70 | 1.00 |
| 12 | | 1.00 | 1.00 | 1.00 | .80 | .70 | 1.10 |
| 13 | | 1.10 | .80 | .90 | .80 | .70 | 1.10 |
| 14 | | 1.20 | .80 | .90 | .80 | .70 | 1.50 |
| 15 | | 1.10 | .80 | .80 | .80 | .70 | 1.40 |
| 16 | | 1.10 | .80 | .80 | .80 | .70 | 1.20 |
| 17 | | 1.10 | 1.10 | .70 | .80 | .80 | .90 |
| 18 | | 1.10 | .80 | .70 | .80 | .80 | .90 |
| 19 | 1.00 | 1.00 | .80 | .70 | .70 | .80 | .90 |
| 20 | 1.00 | 1.00 | .80 | .70 | .70 | .80 | .90 |
| 21 | 1.10 | 1.10 | .80 | .70 | .70 | 1.00 | .90 |
| 22 | 1.00 | 1.10 | .80 | .70 | .70 | 1.00 | 1.00 |
| 23 | 1.10 | .90 | .80 | 5.80 | .70 | 1.00 | 1.80 |
| 24 | 1.20 | 1.00 | .80 | 2.10 | .70 | 1.00 | 1.40 |
| 25 | 1.00 | 1.00 | .80 | 1.10 | .70 | 1.00 | 1.20 |
| 26 | 1.10 | .90 | .80 | 1.00 | .70 | .90 | 1.00 |
| 27 | 1.10 | .90 | .80 | 1.00 | .80 | .80 | 1.00 |
| 28 | 1.30 | 1.00 | .80 | 1.00 | .80 | .80 | 1.00 |
| 29 | 1.20 | 1.00 | .80 | 1.00 | .80 | .80 | 1.00 |
| 30 | 1.10 | 1.00 | .80 | 1.00 | .80 | .80 | 1.50 |
| 31 | | 1.00 | .80 | | .80 | | 1.30 |

DAILY GAGE HEIGHT, IN FEET, OF NORTH TOE RIVER AT SPRUCE PINE, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 1.20 | 1.30 | 1.20 | 1.20 | 1.00 | 17 | 1.20 | 1.60 | 1.20 | 1.30 | 1.10 | 1.00 |
| 2 | ------ | 1.60 | 1.40 | 1.30 | 1.20 | 1.00 | 18 | 1.00 | 1.50 | 1.20 | 1.30 | 1.00 | 1.00 |
| 3 | ------ | 1.60 | 1.40 | 1.20 | 1.20 | 1.00 | 19 | 1.20 | 1.30 | 1.20 | 1.30 | 1.40 | 1.00 |
| 4 | ------ | 1.60 | 1.40 | 1.20 | 1.10 | 1.10 | 20 | 1.10 | 1.20 | 1.20 | 1.10 | 1.10 | 1.00 |
| 5 | 1.00 | 1.60 | 1.30 | 1.20 | 1.10 | 1.10 | 21 | 1.00 | 1.20 | 1.30 | 1.10 | 1.20 | 1.10 |
| 6 | 1.00 | 1.60 | 1.50 | 1.10 | 1.10 | 1.10 | 22 | 1.00 | 1.30 | 1.30 | 1.05 | 1.10 | 1.00 |
| 7 | 1.00 | 1.60 | 1.50 | 1.10 | 1.40 | 1.10 | 23 | 1.10 | 1.20 | 1.40 | 1.05 | 1.10 | 1.30 |
| 8 | 1.00 | 1.60 | 1.50 | 1.10 | 1.20 | 1.10 | 24 | 1.10 | 1.20 | 1.60 | 1.00 | 1.10 | 1.00 |
| 9 | 1.00 | 1.80 | 1.40 | 1.10 | 1.20 | 1.00 | 25 | 1.20 | 1.20 | 1.30 | 1.70 | 1.10 | 1.10 |
| 10 | 1.00 | 2.50 | 1.30 | 1.10 | 1.10 | 1.10 | 26 | 1.20 | 1.20 | 1.30 | 1.60 | 1.10 | 1.00 |
| 11 | 1.20 | 2.80 | 1.20 | 1.10 | 1.10 | 1.00 | 27 | 1.30 | 1.10 | 1.30 | 1.40 | 1.10 | 1.00 |
| 12 | 3.00 | 1.80 | 1.50 | 1.10 | 1.10 | 1.00 | 28 | 1.20 | 1.10 | 1.20 | 1.40 | 1.10 | 1.00 |
| 13 | 1.60 | 1.80 | 1.30 | 1.10 | 1.05 | 1.00 | 29 | 1.20 | 1.10 | 1.20 | 1.30 | 1.10 | .90 |
| 14 | 1.00 | 1.80 | 1.40 | 1.00 | 1.00 | 1.00 | 30 | 1.10 | ------ | 1.20 | 1.20 | 1.30 | .90 |
| 15 | 1.00 | ------ | 1.30 | 1.10 | 1.00 | 1.50 | 31 | 1.10 | ------ | ------ | ------ | 1.10 | -------- |
| 16 | 1.40 | 1.90 | 1.20 | 1.60 | 1.00 | 1.20 | | | | | | | |

RATING TABLE FOR NORTH TOE RIVER AT SPRUCE PINE, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.70 | 120 | 0.85 | 180 | 0.95 | 230 | 1.05 | 290 |
| .75 | 140 | .90 | 205 | 1.00 | 260 | 1.10 | 320 |
| .80 | 160 | | | | | | |

## PIGEON RIVER AT NEWPORT, TENN.

This station was established September 4, 1900, by E. W. Myers. It is located at the highway bridge in the eastern part of Newport, Tenn., 1 mile from the railroad station and 1 mile above the dam of the Newport Flouring Mill, out of reach of backwater.

The channel is straight for about 300 feet above and 200 feet below the station. The section is deep, rough, and irregular in shape; the velocity is poorly distributed and about 50 feet of the total width at low stages is still water or has a negative velocity. The right bank is low and overflows to some extent, but all water passes beneath the bridge and its approach. The left bank is a high, vertical rock cliff. The bed of the stream is rocky near the left bank and sandy near the right bank.

Discharge measurements are made from the lower side of the single-span steel highway bridge. The section is better for measurement at the Southern Railway bridge, about 300 feet below, at which point some of the measurements have been made.

The original wire gage was replaced April 30, 1903, by a standard chain gage fastened to the lower chord of the bridge in the third panel on the downstream side. The datum of the two gages is the same; chain length, 29.94 feet. Since it was first established the gage has been damaged several times, and the records are continuous only from December 14, 1902. Bench marks were established as follows: (1) The top surface of the outer left corner of the hanger plate at the bottom of the

downstream end of the second floor beam from the left bank; elevation, 26.87 feet. (2) The top of a copper plug set in cement on the top of a limestone outcrop about 5 feet upstream and 3 feet to the left of the end of the upstream handrail on the left bank; elevation, 32.61 feet. Elevations refer to datum of the gage. This station was discontinued December 31, 1905.

Discharge Measurements of Pigeon River at Newport, Tenn.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Feb. 12 | E. W. Myers | --- | 1,278 | ---- | 3.98 | 3,450 |
| Feb. 18 | ----do | --- | 1,339 | ---- | 4.12 | 4,862 |
| Mar. 17 | ----do | --- | 1,105 | ---- | 2.58 | 2,031 |
| Apr. 2 | B. S. Drane | --- | 1,197 | ---- | 3.50 | 3,586 |
| Apr. 30 | E. C. Murphy | --- | 1,227 | ---- | 2.46 | 1,912 |
| June 29 | B. S. Drane | --- | 1,032 | ---- | 1.59 | 620 |
| June 30 | ----do | --- | 1,024 | ---- | 1.51 | 649 |
| Aug. 12 | ----do | --- | 1,031 | ---- | 1.41 | 773 |
| Sept. 2 | ----do | --- | 584 | ---- | .97 | 367 |
| Sept. 2 | ----do | --- | 919 | ---- | .97 | 349 |
| Oct. 13 | ----do | --- | 908 | ---- | .82 | 249 |
| Oct. 13 | ----do | --- | 559 | ---- | .82 | 272 |
| Nov. 20 | ----do | --- | 951 | ---- | 1.12 | 424 |
| 1904. | | | | | | |
| Feb. 22 | B. S. Drane | 159 | 1,203 | 1.72 | 2.68 | 2,070 |
| Mar. 29 | ----do | 150 | 1,132 | 1.57 | 2.45 | 1,775 |
| Apr. 26 | ----do | 143 | 992 | .87 | 1.68 | 861 |
| July 8 | J. M. Giles | 110 | 835 | .77 | 1.27 | 642 |
| Aug. 20 | B. S. Drane | 134 | 854 | .50 | 1.10 | 425 |
| Aug. 20* | ----do | 228 | 585 | .84 | 1.10 | 490 |
| Oct. 15 | ----do | 125 | 783 | .21 | .62 | 169 |
| Oct. 15* | ----do | 221 | 443 | .49 | .62 | 216 |
| 1905. | | | | | | |
| Feb. 9 | B. S. Drane | 164 | 1,415 | 3.35 | 4.28 | 4,737 |
| May 11 | W. E. Hall | 130 | 925 | .97 | 1.75 | 920 |
| June 21 | B. S. Drane | 139 | 1,054 | 1.28 | 2.13 | 1,348 |
| Aug. 21 | W. E. Hall | 127 | 920 | 1.06 | 1.75 | 973 |
| Dec. 19 | F. A. Murray | 140 | 979 | .89 | 1.63 | 865 |
| Dec. 26 | ----do | 141 | 1,036 | 1.28 | 2.03 | 1,325 |

*At railroad bridge.

DAILY GAGE HEIGHT, IN FEET, OF PIGEON RIVER AT NEWPORT, TENN., FOR 1903-1904.

| 1903. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.85 | 2.85 | (*) | 3.90 | 2.40 | 2.20 | 1.70 | 1.50 | 1.00 | 0.70 | 0.80 | 0.85 |
| 2 | 2.87 | 2.85 | ------- | 3.50 | 2.30 | 2.10 | 1.60 | 1.50 | 1.00 | .70 | .85 | .80 |
| 3 | 2.85 | 2.85 | 3.30 | 3.40 | 2.30 | 2.30 | 1.70 | 1.50 | 1.00 | .70 | .85 | .80 |
| 4 | 2.87 | 5.82 | 3.30 | 4.90 | 2.20 | 2.30 | 1.60 | 1.40 | 1.00 | .70 | .85 | .85 |
| 5 | 2.77 | 3.67 | 3.20 | 3.70 | 2.10 | 2.90 | 1.60 | 1.40 | .95 | .75 | .90 | .85 |
| 6 | 2.84 | 3.07 | 3.10 | 3.10 | 2.10 | 5.50 | 1.50 | 1.30 | .90 | .75 | .90 | .85 |
| 7 | 2.85 | (*) | 3.00 | 4.90 | 2.10 | 3.40 | 1.60 | 1.30 | .90 | .70 | .85 | .85 |
| 8 | 2.84 | ------- | 4.30 | 11.00 | 2.00 | 3.30 | 1.50 | 1.20 | .90 | .85 | .85 | .90 |
| 9 | 2.85 | ------- | 3.50 | 6.70 | 2.00 | 3.00 | 1.50 | 1.20 | .90 | 1.55 | .85 | .90 |
| 10 | 2.84 | ------- | 3.20 | 4.30 | 1.90 | 2.70 | 1.60 | 1.20 | .95 | 1.00 | .85 | .80 |
| 11 | (*) | ------- | 3.20 | 3.70 | 1.90 | 2.50 | 1.50 | 1.60 | .95 | .80 | .90 | .75 |
| 12 | ------- | ------- | 3.10 | 4.20 | 1.80 | 2.40 | 1.60 | 1.50 | .85 | .80 | .90 | .70 |
| 13 | ------- | ------- | 3.10 | 5.70 | 1.80 | 2.30 | 1.50 | 1.20 | .80 | .80 | .90 | 1.15 |
| 14 | ------- | ------- | 3.00 | 4.80 | 1.80 | 2.20 | 1.50 | 1.10 | .80 | .80 | .90 | 1.15 |
| 15 | ------- | ------- | 2.80 | 4.10 | 1.70 | 2.10 | 1.50 | 2.00 | .80 | .80 | .95 | 1.00 |
| 16 | ------- | ------- | 2.70 | 3.90 | 1.70 | 2.10 | 1.60 | 2.60 | .85 | .80 | .95 | .95 |
| 17 | ------- | ------- | 2.70 | 3.70 | 1.70 | 2.10 | 1.90 | 2.40 | 1.45 | .85 | 1.70 | .85 |
| 18 | 2.85 | ------- | 2.60 | 3.50 | 1.80 | 2.00 | 1.70 | 2.00 | 1.30 | 1.20 | 1.80 | .65 |
| 19 | 2.85 | ------- | 2.60 | 3.50 | 1.70 | 2.00 | 1.80 | 1.50 | 1.00 | .85 | 1.40 | 1.55 |
| 20 | 2.85 | ------- | 2.50 | 3.40 | 1.70 | 1.90 | 1.70 | 1.40 | .95 | .80 | 1.10 | 1.55 |
| 21 | 2.85 | ------- | 2.40 | 3.20 | 1.70 | 1.90 | 1.50 | 1.30 | .90 | .80 | 1.00 | 1.45 |
| 22 | 2.85 | ------- | 2.50 | 3.20 | 1.70 | 1.90 | 1.40 | 1.30 | .85 | .80 | 1.00 | 1.35 |
| 23 | 2.85 | ------- | 10.50 | 3.10 | 1.80 | 1.90 | 1.40 | 1.20 | .80 | .80 | 1.00 | 1.20 |
| 24 | 2.85 | ------- | 5.80 | 3.10 | 1.80 | 1.80 | 1.40 | 1.20 | .80 | .80 | .95 | 1.10 |
| 25 | 2.85 | ------- | 5.00 | 3.10 | 1.70 | 1.80 | 1.30 | 1.10 | .80 | .80 | .95 | 1.15 |
| 26 | 2.87 | ------- | 3.90 | 3.00 | 1.80 | 1.80 | 1.20 | 1.00 | .80 | .75 | .95 | 1.20 |
| 27 | 2.88 | ------- | 3.30 | 2.90 | 1.80 | 1.70 | 1.20 | 1.00 | .85 | .75 | 1.00 | 1.20 |
| 28 | 2.87 | ------- | 3.10 | 2.80 | 1.80 | 1.80 | 1.20 | 1.00 | .80 | .75 | 1.00 | 1.10 |
| 29 | 2.88 | ------- | 3.50 | 2.60 | 1.90 | 1.70 | 1.20 | 1.10 | .70 | .75 | 1.00 | 1.05 |
| 30 | 2.87 | ------- | 6.20 | 2.40 | 2.00 | 1.70 | 1.40 | 1.00 | .70 | .80 | .95 | 1.00 |
| 31 | 2.85 | ------- | 4.20 | ------- | 2.20 | ------- | 1.60 | 1.00 | ------- | .80 | ------ | .90 |
| 1904. | | | | | | | | | | | | |
| 1 | 1.00 | 1.15 | 1.90 | 2.00 | 1.85 | 1.80 | 1.60 | 1.10 | 1.15 | 0.70 | 0.60 | 1.10 |
| 2 | 1.05 | 1.10 | 1.85 | 1.90 | 1.80 | 1.70 | 1.45 | 1.50 | 1.25 | .65 | .60 | 1.00 |
| 3 | 1.10 | 1.10 | 1.80 | 1.85 | 1.75 | 1.65 | 1.20 | 1.10 | 1.20 | .65 | .65 | .90 |
| 4 | 1.00 | 1.05 | 1.70 | 1.80 | 1.80 | 1.50 | 1.20 | 1.20 | 1.25 | .65 | .80 | 1.00 |
| 5 | .70 | 1.10 | 1.65 | 1.75 | 1.75 | 1.30 | 1.20 | 1.40 | 1.25 | .65 | 1.05 | 1.20 |
| 6 | .50 | 1.15 | 1.60 | 1.70 | 1.70 | 1.50 | 1.30 | 1.55 | 1.30 | .70 | .95 | 2.40 |
| 7 | 1.15 | 1.50 | 6.30 | 1.75 | 1.60 | 1.70 | 1.45 | 1.50 | 1.15 | .65 | .85 | 1.60 |
| 8 | 1.00 | 2.40 | 3.10 | 1.90 | 2.00 | 1.85 | 1.30 | 1.30 | 1.00 | .65 | .80 | 1.25 |
| 9 | .95 | 2.00 | 2.50 | 2.50 | 2.70 | 1.50 | 2.25 | 1.40 | 1.00 | .65 | .70 | 1.10 |
| 10 | 1.00 | 1.75 | 2.35 | 2.00 | 2.25 | 1.35 | 1.75 | 1.50 | 1.00 | .65 | .65 | 1.05 |
| 11 | 1.10 | 1.55 | 2.30 | 1.80 | 2.00 | 1.30 | 1.45 | 1.55 | .95 | .60 | .65 | 1.00 |
| 12 | 1.25 | 1.50 | 2.30 | 1.75 | 1.95 | 1.35 | 1.75 | 1.60 | .95 | .60 | .60 | 1.00 |
| 13 | 1.20 | 1.40 | 2.10 | 1.70 | 1.90 | 1.35 | 1.50 | 1.70 | .95 | .60 | .70 | 1.00 |
| 14 | 1.10 | 1.40 | 2.05 | 1.60 | 1.85 | 1.25 | 1.25 | 1.40 | .90 | .60 | .80 | .95 |
| 15 | 1.10 | 1.35 | 2.00 | 1.65 | 1.80 | 1.20 | 1.25 | 1.35 | .85 | .60 | .90 | .90 |
| 16 | 1.15 | 1.30 | 2.00 | 1.70 | 1.70 | 1.20 | 1.15 | 1.40 | .80 | .55 | .85 | .90 |
| 17 | 1.15 | 1.30 | 1.90 | 1.70 | 1.60 | 1.15 | 1.30 | 1.15 | .80 | .55 | .80 | .90 |
| 18 | 1.15 | 1.30 | 1.90 | 1.65 | 1.60 | 1.20 | 1.20 | 1.05 | .80 | .55 | .80 | .85 |
| 19 | 1.15 | 1.30 | 1.90 | 1.60 | 1.55 | 1.20 | 1.10 | 1.05 | .80 | .55 | .75 | .85 |
| 20 | 1.20 | 1.40 | 1.80 | 1.50 | 1.50 | 1.30 | 1.00 | 1.10 | .80 | .60 | .75 | .70 |
| 21 | 1.25 | 1.40 | 2.00 | 1.75 | 1.45 | 1.50 | 1.00 | 1.10 | .75 | .60 | .80 | .65 |
| 22 | 2.65 | 2.65 | 2.50 | 1.85 | 1.35 | 1.40 | 1.40 | 1.15 | .75 | .55 | .80 | .65 |
| 23 | 3.15 | 2.25 | 5.10 | 1.75 | 1.35 | 1.40 | 1.50 | 1.50 | .75 | .55 | .90 | .60 |
| 24 | 2.00 | 1.85 | 2.30 | 1.60 | 1.35 | 1.20 | 1.45 | 1.40 | .70 | .55 | 1.00 | .90 |
| 25 | 1.75 | 1.20 | 2.20 | 1.60 | 1.40 | 1.25 | 1.40 | 1.30 | .70 | .60 | .90 | .95 |
| 26 | 1.60 | 1.65 | 2.80 | 1.60 | 1.40 | 1.25 | 1.30 | 1.40 | .70 | .60 | .80 | 1.00 |
| 27 | 1.50 | 2.70 | 2.95 | 1.95 | 1.35 | 1.35 | 1.20 | 1.30 | .75 | .60 | .75 | 1.05 |
| 28 | 1.40 | 2.20 | 2.75 | 2.00 | 1.30 | 1.45 | 1.05 | 1.25 | .75 | .60 | .75 | 3.05 |
| 29 | 1.30 | 2.00 | 2.45 | 2.00 | 1.25 | 1.50 | 1.00 | 1.20 | .75 | .60 | .75 | 1.90 |
| 30 | 1.25 | ------- | 2.30 | 2.00 | 1.20 | 1.70 | 1.00 | 1.15 | .70 | .60 | 1.20 | 1.50 |
| 31 | 1.20 | ------- | 2.15 | ------- | 2.20 | ------- | 1.05 | 1.10 | ------- | .60 | ------ | 1.40 |

*No record.

DAILY GAGE HEIGHT, IN FEET, OF PIGEON RIVER AT NEWPORT, TENN., FOR 1905.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.35 | 1.35 | 2.00 | 1.60 | 1.90 | 1.90 | 1.50 | 1.40 | 1.40 | 0.90 | 0.95 | 0.90 |
| 2 | 1.30 | 1.30 | 1.95 | 1.50 | 1.70 | 1.75 | 1.45 | 1.40 | 1.45 | .95 | .95 | .95 |
| 3 | 1.40 | 1.20 | 1.80 | 1.50 | 1.60 | 1.60 | 1.45 | 1.35 | 1.45 | .95 | .90 | 4.10 |
| 4 | 1.45 | 1.05 | 1.75 | 1.55 | 1.60 | 1.60 | 1.30 | 1.35 | 1.40 | 1.00 | .90 | 3.50 |
| 5 | 1.55 | 1.10 | 1.75 | 1.60 | 1.65 | 1.55 | 1.40 | 1.30 | 1.30 | 1.20 | 1.00 | 2.00 |
| 6 | 1.70 | 1.45 | 1.70 | 1.75 | 2.00 | 1.50 | 1.55 | 1.25 | 1.20 | 1.00 | 1.00 | 1.60 |
| 7 | 2.00 | 1.90 | 1.80 | 2.10 | 2.00 | 1.40 | 1.50 | 1.25 | 1.20 | .90 | 1.00 | 1.70 |
| 8 | 1.50 | 1.70 | 1.90 | 2.00 | 2.00 | 1.50 | 1.45 | 1.35 | 1.20 | .90 | 1.00 | 1.75 |
| 9 | 1.15 | 4.90 | 2.00 | 2.40 | 2.00 | 1.45 | 1.40 | 2.35 | 1.20 | .90 | .95 | 2.15 |
| 10 | 1.45 | 3.30 | 3.40 | 2.20 | 1.95 | 1.35 | 1.50 | 1.85 | 1.15 | .90 | .95 | 2.00 |
| 11 | 1.35 | 2.55 | 2.80 | 2.05 | 2.00 | 1.30 | 1.90 | 1.90 | 1.15 | 1.10 | .90 | 1.90 |
| 12 | 5.00 | 2.50 | 2.30 | 2.60 | 1.70 | 1.30 | 7.60 | 3.15 | 1.15 | 1.15 | .90 | 1.80 |
| 13 | 4.00 | 2.40 | 2.15 | 2.40 | 1.80 | 1.55 | 4.10 | 2.50 | 1.15 | 1.20 | .90 | 1.70 |
| 14 | 2.80 | 2.55 | 2.10 | 2.20 | 1.80 | 1.35 | 2.90 | 2.30 | 1.10 | 1.10 | .90 | 1.75 |
| 15 | 2.40 | 2.25 | 2.00 | 2.05 | 2.50 | 1.35 | 2.40 | 2.10 | 1.05 | 1.10 | .90 | 1.75 |
| 16 | 2.30 | 2.10 | 1.90 | 2.00 | 3.90 | 1.40 | 2.10 | 2.00 | 1.05 | 1.05 | .85 | 1.70 |
| 17 | 1.90 | 2.00 | 1.85 | 1.85 | 3.00 | 1.90 | 2.00 | 2.25 | 1.05 | 1.00 | .85 | 1.70 |
| 18 | 1.80 | 1.95 | 1.85 | 1.80 | 2.35 | 1.80 | 2.00 | 2.45 | 1.00 | .95 | .80 | 1.65 |
| 19 | 1.75 | 1.85 | 1.80 | 1.75 | 2.10 | 1.60 | 2.00 | 2.00 | 1.00 | .95 | .80 | 1.60 |
| 20 | 1.65 | 4.00 | 2.00 | 1.70 | 2.00 | 1.55 | 1.90 | 1.90 | 1.20 | 1.00 | 1.00 | 1.60 |
| 21 | 1.55 | 5.00 | 2.25 | 1.70 | 1.95 | 2.10 | 1.85 | 1.75 | 1.30 | 1.20 | 1.10 | 1.95 |
| 22 | 1.50 | 3.80 | 2.10 | 1.70 | 2.10 | 1.80 | 1.85 | 1.75 | 1.20 | 1.10 | 1.10 | 2.20 |
| 23 | 1.40 | 3.10 | 1.95 | 1.65 | 2.70 | 1.85 | 1.80 | 1.70 | 1.05 | 1.00 | 1.05 | 2.00 |
| 24 | 1.20 | 3.00 | 1.90 | 1.60 | 2.20 | 1.75 | 1.75 | 1.80 | 1.05 | .95 | 1.00 | 2.00 |
| 25 | 1.05 | 2.50 | 1.85 | 1.55 | 2.10 | 1.60 | 1.70 | 2.00 | 1.05 | 1.00 | .90 | 2.00 |
| 26 | .95 | 2.30 | 1.80 | 1.50 | 2.05 | 1.55 | 1.60 | 1.80 | 1.00 | 1.05 | .90 | 1.90 |
| 27 | .80 | 2.20 | 1.70 | 1.75 | 2.55 | 2.45 | 1.55 | 1.75 | .95 | 1.10 | .95 | 1.80 |
| 28 | 1.20 | 2.10 | 1.70 | 1.60 | 2.25 | 2.00 | 1.55 | 1.60 | .95 | 1.20 | .85 | 1.75 |
| 29 | 1.25 | ..... | 1.60 | 1.65 | 2.10 | 1.75 | 2.00 | 1.50 | .90 | 1.10 | .85 | 1.60 |
| 30 | 1.25 | ..... | 1.70 | 2.00 | 1.95 | 1.60 | 1.80 | 1.45 | .90 | 1.00 | .90 | 1.65 |
| 31 | 1.30 | ..... | 1.70 | ..... | 1.95 | ..... | 1.65 | 1.40 | ..... | 1.00 | ..... | 1.65 |

RATING TABLE FOR PIGEON RIVER AT NEWPORT, TENN., FOR 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.6 | 160 | 1.6 | 756 | 2.6 | 2,090 | 3.6 | 3,805 |
| .7 | 210 | 1.7 | 854 | 2.7 | 2,240 | 3.7 | 4,000 |
| .8 | 260 | 1.8 | 962 | 2.8 | 2,390 | 3.8 | 4,195 |
| .9 | 312 | 1.9 | 1,080 | 2.9 | 2,550 | 3.9 | 4,390 |
| 1.0 | 366 | 2.0 | 1,210 | 3.0 | 2,710 | 4.0 | 4,590 |
| 1.1 | 420 | 2.1 | 1,350 | 3.1 | 2,870 | 4.1 | 4,790 |
| 1.2 | 478 | 2.2 | 1,490 | 3.2 | 3,050 | 4.2 | 4,995 |
| 1.3 | 538 | 2.3 | 1,640 | 3.3 | 3,235 | 4.4 | 5,420 |
| 1.4 | 600 | 2.4 | 1,790 | 3.4 | 3,425 | 4.6 | 5,860 |
| 1.5 | 670 | 2.5 | 1,940 | 3.5 | 3,615 | 4.8 | 6,310 |

Table uncertain above 4 feet gage height. Differences from 4.8 feet, 225 per tenth.

RATING TABLE FOR PIGEON RIVER AT NEWPORT, TENN., FOR 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.6 | 180 | 1.5 | 710 | 2.4 | 1,660 | 3.3 | 3,300 |
| .7 | 225 | 1.6 | 790 | 2.5 | 1,810 | 3.4 | 3,500 |
| .8 | 275 | 1.7 | 875 | 2.6 | 1,970 | 3.5 | 3,700 |
| .9 | 325 | 1.8 | 965 | 2.7 | 2,140 | 3.6 | 3,900 |
| 1.0 | 380 | 1.9 | 1,060 | 2.8 | 2,320 | 3.7 | 4,100 |
| 1.1 | 440 | 2.0 | 1,160 | 2.9 | 2,510 | 3.8 | 4,300 |
| 1.2 | 500 | 2.1 | 1,270 | 3.0 | 2,700 | 3.9 | 4,500 |
| 1.3 | 565 | 2.2 | 1,390 | 3.1 | 2,900 | 4.0 | 4,700 |
| 1.4 | 635 | 2.3 | 1,520 | 3.2 | 3,100 | 5.0 | 6,700 |

The above table is based upon measurements made 1900–1904, and is well defined. Above gage height 3 feet the rating curve is a tangent, the difference being 200 per tenth.

RATING TABLE FOR PIGEON RIVER AT NEWPORT, TENN., FOR 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.80 | 300 | 2.20 | 1,460 | 3.60 | 3,640 | 4.90 | 6,170 |
| .90 | 345 | 2.30 | 1,590 | 3.70 | 3,830 | 5.00 | 6,370 |
| 1.00 | 400 | 2.40 | 1,720 | 3.80 | 4,020 | 5.20 | 6,770 |
| 1.10 | 460 | 2.50 | 1,860 | 3.90 | 4,210 | 5.40 | 7,170 |
| 1.20 | 525 | 2.60 | 2,000 | 4.00 | 4,400 | 5.60 | 7,580 |
| 1.30 | 595 | 2.70 | 2,140 | 4.10 | 4,590 | 5.80 | 8,000 |
| 1.40 | 665 | 2.80 | 2,290 | 4.20 | 4,780 | 6.00 | 8,420 |
| 1.50 | 740 | 2.90 | 2,440 | 4.30 | 4,970 | 6.20 | 8,840 |
| 1.60 | 820 | 3.00 | 2,600 | 4.40 | 5,170 | 6.40 | 9,260 |
| 1.70 | 910 | 3.10 | 2,760 | 4.50 | 5,370 | 6.60 | 9,690 |
| 1.80 | 1,010 | 3.20 | 2,930 | 4.60 | 5,570 | 6.80 | 10,130 |
| 1.90 | 1,110 | 3.30 | 3,100 | 4.70 | 5,770 | 7.00 | 10,570 |
| 2.00 | 1,220 | 3.40 | 3,280 | 4.80 | 5,970 | 7.50 | 11,670 |
| 2.10 | 1,340 | 3.50 | 3,460 | | | | |

NOTE.—The above table is based on discharge measurements made during 1904–1905. It is fairly well defined between gage heights 1.6 feet and 4.5 feet. The table has been extended beyond these limits.

ESTIMATED MONTHLY DISCHARGE OF PIGEON RIVER AT NEWPORT, TENN.

[Drainage area, 655 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| January 1-10 and 18-31* | ------ | ----- | 2,470 | 3.77 | 3.36 |
| February 1-6* | ------ | ----- | 3,962 | 6.05 | 1.35 |
| March 3-31* | ------ | ----- | 4,076 | 6.22 | 6.71 |
| April | 20,260 | 1,790 | 4,704 | 7.18 | 8.01 |
| May | 1,790 | 854 | 1,112 | 1.70 | 1.96 |
| June | 7,885 | 854 | 1,741 | 2.66 | 2.97 |
| July | 1,080 | 478 | 701 | 1.07 | 1.23 |
| August | 2,090 | 366 | 655 | 1.00 | 1.15 |
| September | 635 | 210 | 319 | .49 | .55 |
| October | 713 | 210 | 275 | .42 | .48 |
| November | 962 | 260 | 373 | .57 | .64 |
| December | 713 | 185 | 380 | .58 | .67 |

*No record for missing days.

ESTIMATED MONTHLY DISCHARGE OF PIGEON RIVER AT NEWPORT, TENN.—*Continued.*

[Drainage area, 655 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| January | 3,000 | 140 | 635 | 0.969 | 1.12 |
| February | 2,140 | 410 | 846 | 1.29 | 1.39 |
| March | 9,300 | 790 | 1,859 | 2.84 | 3.27 |
| April | 1,810 | 710 | 974 | 1.49 | 1.66 |
| May | 2,140 | 500 | 895 | 1.37 | 1.58 |
| June | 1,012 | 470 | 653 | .997 | 1.11 |
| July | 1,455 | 380 | 598 | .913 | 1.05 |
| August | 875 | 410 | 583 | .890 | 1.03 |
| September | 565 | 225 | 340 | .519 | .579 |
| October | 225 | 160 | 184 | .281 | .324 |
| November | 500 | 180 | 275 | .420 | .469 |
| December | 2,800 | 180 | 529 | .808 | .932 |
| The year | 9,300 | 140 | 698 | 1.07 | 14.51 |
| 1905. | | | | | |
| January | 6,370 | 300 | 1,111 | 1.70 | 1.96 |
| February | 6,370 | 430 | 1,956 | 2.99 | 3.11 |
| March | 3,280 | 820 | 1,220 | 1.86 | 2.14 |
| April | 2,000 | 740 | 1,080 | 1.65 | 1.84 |
| May | 4,210 | 820 | 1,402 | 2.14 | 2.47 |
| June | 1,790 | 595 | 1,211 | 1.85 | 2.06 |
| July | 11,890 | 595 | 1,463 | 2.23 | 2.57 |
| August | 2,845 | 560 | 1,068 | 1.63 | 1.88 |
| September | 702 | 345 | 491 | .750 | .837 |
| October | 525 | 345 | 419 | .640 | .738 |
| November | 460 | 300 | 365 | .557 | .621 |
| December | 4,590 | 345 | 1,177 | 1.80 | 2.08 |
| The year | 11,890 | 300 | 1,080 | 1.65 | 22.31 |

PIGEON RIVER AT CANTON, N. C.

The station here was established on May 25, 1907, and is located at the wagon bridge, about 1,000 feet above the railroad crossing.

The vertical gage is attached to a special post on the left bank, about 50 feet above the bridge.

Discharge measurements are made from the single-span steel highway bridge, which is 165 feet long, and is supported by stone abutments.

The flow is confined between the bridge abutments, probably from all stages. The current is rather sluggish and the bed is sandy.

The bench mark is the top of the downstream end of the second floor beam from the left end of the bridge; elevation, 21.13 feet.

DISCHARGE MEASUREMENTS OF PIGEON RIVER AT CANTON, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 25 | F. A. Murray | 129 | 298 | 0.92 | 3.07 | 274 |
| Aug. 24 | Frank P. Thomas | 119 | 240 | .58 | 2.60 | 141 |
| Aug. 24 | do | 119 | 247 | .58 | 2.58 | 144 |
| Oct. 22 | Olin P. Hall | 110 | 261 | .40 | 2.50 | 105 |

DAILY GAGE HEIGHT, IN FEET, OF PIGEON RIVER AT CANTON, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.50 | 2.90 | 2.60 | 2.50 | 2.80 | 2.60 | 2.90 |
| 2 | | 3.20 | 3.05 | 2.60 | 2.50 | 2.80 | 2.65 | 2.85 |
| 3 | | 3.20 | 3.10 | 2.60 | 2.50 | 2.75 | 2.80 | 2.80 |
| 4 | | 3.10 | 2.90 | 2.60 | 2.50 | 2.70 | 2.70 | 2.80 |
| 5 | | 3.05 | 2.80 | 2.60 | 2.50 | 2.70 | 2.60 | 2.70 |
| 6 | | 3.00 | 2.80 | 2.60 | 2.50 | 2.70 | 2.60 | 2.70 |
| 7 | | 3.00 | 2.80 | 2.60 | 2.50 | 2.70 | 2.60 | 2.70 |
| 8 | | 3.35 | 2.80 | 2.60 | 2.65 | 2.70 | 2.60 | 2.70 |
| 9 | | 3.20 | 2.70 | 2.60 | 2.60 | 2.60 | 2.65 | 2.90 |
| 10 | | 3.15 | 2.70 | 2.60 | 2.50 | 2.60 | 3.05 | 3.85 |
| 11 | | 3.05 | 2.70 | 2.60 | 2.50 | 2.60 | 2.85 | 3.20 |
| 12 | | 3.00 | 3.05 | 2.75 | 2.50 | 2.55 | 2.75 | 3.10 |
| 13 | | 3.00 | 2.90 | 2.65 | 2.50 | 2.50 | 2.60 | 3.05 |
| 14 | | 3.00 | 2.90 | 2.60 | 2.50 | 2.50 | 2.60 | 3.10 |
| 15 | | 3.00 | 3.00 | 2.60 | 2.50 | 2.50 | 2.60 | 3.40 |
| 16 | | 2.90 | 3.20 | 2.70 | 2.50 | 2.50 | 2.60 | 3.25 |
| 17 | | 2.90 | 2.90 | 2.65 | 2.50 | 2.50 | 2.60 | 3.20 |
| 18 | | 2.90 | 3.00 | 2.60 | 2.50 | 2.50 | 2.60 | 3.15 |
| 19 | | 2.90 | 2.90 | 2.60 | 2.50 | 2.50 | 2.75 | 3.05 |
| 20 | | 2.90 | 2.90 | 2.60 | 2.50 | 2.50 | 2.80 | 3.00 |
| 21 | | 2.90 | 2.80 | 2.60 | 2.60 | 2.50 | 3.85 | 3.00 |
| 22 | | 2.90 | 2.70 | 2.60 | 2.75 | 2.50 | 3.20 | 3.00 |
| 23 | | 3.00 | 2.70 | 2.70 | 6.10 | 2.50 | 3.25 | 4.80 |
| 24 | | 3.15 | 2.75 | 2.65 | 3.15 | 2.50 | 3.60 | 3.65 |
| 25 | 3.10 | 3.00 | 2.80 | 2.60 | 2.85 | 2.50 | 3.40 | 3.50 |
| 26 | 3.15 | 2.90 | 2.70 | 2.50 | 2.75 | 2.50 | 3.20 | 3.40 |
| 27 | 3.03 | 2.95 | 2.70 | 2.50 | 2.70 | 2.50 | 3.00 | 3.25 |
| 28 | 3.00 | 3.10 | 2.70 | 2.50 | 2.90 | 2.70 | 2.90 | 3.20 |
| 29 | 3.00 | 3.00 | 2.70 | 2.50 | 3.20 | 2.65 | 2.90 | 3.20 |
| 30 | 3.00 | 2.90 | 2.70 | 2.50 | 2.85 | 2.60 | 2.90 | 4.00 |
| 31 | 3.20 | | 2.70 | 2.50 | | 2.60 | | 4.10 |

DAILY GAGE HEIGHT, IN FEET, OF PIGEON RIVER AT CANTON, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.80 | 3.25 | 3.30 | 3.30 | 3.40 | 3.00 | 2.90 | 2.80 | 3.20 | 2.80 |
| 2 | 3.60 | 3.20 | 3.30 | 3.25 | 3.40 | 3.00 | 2.90 | 2.80 | 3.20 | 2.80 |
| 3 | 3.30 | 3.20 | 3.30 | 3.20 | 3.40 | 3.00 | 2.95 | 2.80 | 3.15 | 2.80 |
| 4 | 3.40 | 3.25 | 3.35 | 3.20 | 3.40 | 3.00 | 3.10 | 2.90 | 3.10 | 2.80 |
| 5 | 3.60 | 3.30 | 3.40 | 3.20 | 3.35 | 3.10 | 3.65 | 3.05 | 3.70 | 2.70 |
| 6 | 3.40 | 3.20 | 3.50 | 3.20 | 3.30 | 3.15 | 3.40 | 3.50 | 3.50 | 2.70 |
| 7 | 3.40 | 3.10 | 3.50 | 3.15 | 3.65 | 3.20 | 3.55 | 3.30 | 3.40 | 2.65 |
| 8 | 3.35 | 3.10 | 3.45 | 3.10 | 3.60 | 3.10 | 3.55 | 3.00 | 3.35 | 2.60 |
| 9 | 3.30 | 3.10 | 3.35 | 3.10 | 3.50 | 3.10 | 3.45 | 2.80 | 3.30 | 3.20 |
| 10 | 3.30 | 3.10 | 3.30 | 3.05 | 3.40 | 3.10 | 3.35 | 2.80 | 3.20 | 4.00 |
| 11 | 4.50 | 3.35 | 3.30 | 3.00 | 3.40 | 3.10 | 3.25 | 2.80 | 3.10 | 3.20 |
| 12 | 4.60 | 3.75 | 3.80 | 3.00 | 3.35 | 3.00 | 3.15 | 2.90 | 3.00 | 3.20 |
| 13 | 3.90 | 3.95 | 3.40 | 3.00 | 3.30 | 3.00 | 3.10 | 2.90 | 3.00 | 3.10 |
| 14 | 3.70 | 4.30 | 3.35 | 3.00 | 3.30 | 3.00 | 3.10 | 2.90 | 3.00 | 3.10 |
| 15 | 3.55 | 7.70 | 3.30 | 3.25 | 3.25 | 3.30 | 3.10 | 2.90 | 3.00 | 3.05 |
| 16 | 3.50 | 4.40 | 3.30 | 3.45 | 3.20 | 3.15 | 3.05 | 2.90 | 3.00 | 3.00 |
| 17 | 3.45 | 4.10 | 3.30 | 3.45 | 3.20 | 3.10 | 3.00 | 2.90 | 2.90 | 3.00 |
| 18 | 3.40 | 3.90 | 3.30 | 3.40 | 3.20 | 3.05 | 2.90 | 2.95 | 2.90 | 3.00 |
| 19 | 3.30 | 3.70 | 3.30 | 3.35 | 3.20 | 3.00 | 3.05 | 3.05 | 2.90 | 3.00 |
| 20 | 3.30 | 3.55 | 3.95 | 3.30 | 3.20 | 3.30 | 2.90 | 3.15 | 2.90 | 2.90 |
| 21 | 3.25 | 3.50 | 3.70 | 3.20 | 3.10 | 3.00 | 2.90 | 3.60 | 2.90 | 2.90 |
| 22 | 3.20 | 3.45 | 3.50 | 3.20 | 3.10 | 3.00 | 2.85 | 3.95 | 2.80 | 2.95 |
| 23 | 3.10 | 3.40 | 4.20 | 3.20 | 3.10 | 3.00 | 2.80 | 3.35 | 2.80 | 5.00 |
| 24 | 3.10 | 3.40 | 4.10 | 3.20 | 3.10 | 3.00 | 2.80 | 3.40 | 2.80 | 4.00 |
| 25 | 3.10 | 3.40 | 3.80 | 5.20 | 3.10 | 2.90 | 2.85 | 4.90 | 2.80 | 3.70 |
| 26 | 3.10 | 3.40 | 3.65 | 3.85 | 3.10 | 2.90 | 3.05 | 4.40 | 2.80 | 3.65 |
| 27 | 3.25 | 3.30 | 3.60 | 3.75 | 3.00 | 2.90 | 2.90 | 3.80 | 2.80 | 3.60 |
| 28 | 3.10 | 3.30 | 3.55 | 3.65 | 3.00 | 2.90 | 3.15 | 3.65 | 2.80 | 3.95 |
| 29 | 3.10 | 3.30 | 3.50 | 3.50 | 3.00 | 2.90 | 3.05 | 3.50 | 2.80 | 4.60 |
| 30 | 3.10 | ..... | 3.40 | 3.45 | 3.00 | 2.90 | 2.95 | 3.35 | 2.80 | 4.10 |
| 31 | 3.30 | ..... | 3.35 | ..... | 3.00 | ..... | 2.90 | 3.30 | ..... | 3.95 |

RATING TABLE FOR PIGEON RIVER AT CANTON, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 2.50 | 105 | 2.70 | 150 | 2.90 | 205 | 3.10 | 265 |
| 2.55 | 115 | 2.75 | 162 | 2.95 | 220 | 3.15 | 280 |
| 2.60 | 125 | 2.80 | 175 | 3.00 | 235 | 3.20 | 300 |
| 2.65 | 137 | 2.85 | 190 | 3.05 | 250 | | |

## IVY RIVER AT DEMOCRAT, N. C.

This station was established on May 26, 1907, and is located at the wagon bridge, Democrat, N. C., about 18 miles west of Asheville, N. C.

The vertical gage is located as follows: The lower section is on a special post, spiked to a small willow tree on the right bank about 150 feet below the bridge. The upper section is attached to a sycamore tree about 25 feet to the right of the lower one.

Discharge measurements are made from the wagon bridge, which is a single steel span, supported on stone abutments. The banks are both high, and will not overflow. The current is irregular, and the bed is rocky and rough.

The bench mark is the top of the downstream end of the second floor beam from the left end of the bridge; elevation, 15.35 feet.

The station was abandoned at the end of 1907.

Discharge Measurements of Ivy River at Democrat, N. C., for 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 27 | Warren E. Hall | 60 | 114 | 0.71 | 1.00 | 81 |
| July 11 | ....do | 55 | 87 | .67 | .89 | 58 |
| July 11 | Frank P. Thomas | 55 | 87 | .59 | .89 | 51 |
| Sept. 24 | Warren E. Hall | 55 | 94 | .68 | 1.00 | 64 |

Daily Gage Height, in Feet, of Ivy River at Democrat, N. C., for 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 1.70 | 1.30 | 1.00 | 0.70 | 0.80 | 0.70 | 0.80 |
| 2 | | 1.10 | 1.20 | 1.00 | .70 | .80 | .80 | .80 |
| 3 | | 1.50 | 1.10 | .90 | .70 | .80 | .90 | .80 |
| 4 | | 1.30 | 1.10 | .90 | .70 | .80 | .80 | .80 |
| 5 | | 1.20 | 1.00 | .90 | .80 | 1.00 | .80 | .80 |
| 6 | | 1.10 | 1.00 | .90 | .70 | .80 | .80 | .70 |
| 7 | | 1.10 | 1.00 | .90 | .70 | .80 | .80 | .70 |
| 8 | | 1.20 | 1.00 | .90 | .90 | .80 | .80 | .80 |
| 9 | | 1.40 | 1.00 | .90 | .80 | .80 | .80 | 1.00 |
| 10 | | 1.20 | .90 | .90 | .80 | .70 | 1.00 | 1.70 |
| 11 | | 1.30 | .90 | .80 | .90 | .70 | 1.00 | 1.30 |
| 12 | | 1.30 | 1.20 | .90 | .70 | .70 | .90 | 1.00 |
| 13 | | 1.20 | 1.20 | 1.00 | .70 | .70 | .90 | 1.00 |
| 14 | | 1.20 | 1.10 | .90 | .60 | .70 | .90 | 1.70 |
| 15 | | 1.20 | 1.00 | .90 | .70 | .70 | .80 | 1.30 |
| 16 | | 1.10 | 1.10 | .80 | .90 | .70 | .80 | 1.20 |
| 17 | | 1.10 | 1.10 | .80 | .70 | .70 | .80 | 1.00 |
| 18 | | 1.00 | 1.50 | 1.10 | .70 | .70 | 1.00 | 1.00 |
| 19 | | 1.00 | 1.30 | 1.00 | .70 | .80 | .90 | 1.00 |
| 20 | | 1.20 | 1.20 | 1.00 | .60 | .70 | .90 | 1.00 |
| 21 | | 1.10 | 1.10 | .90 | .60 | .70 | 1.10 | 1.00 |
| 22 | | 1.00 | 1.00 | .80 | .80 | .70 | 1.00 | 1.00 |
| 23 | | 1.10 | 1.00 | .80 | 3.80 | .80 | 1.10 | 1.70 |
| 24 | | 1.20 | 1.10 | .90 | 1.10 | .80 | 1.30 | 1.40 |
| 25 | | 1.20 | 1.10 | .80 | 1.00 | .80 | 1.00 | 1.20 |
| 26 | | 1.30 | 1.00 | .80 | .80 | .70 | 1.00 | 1.10 |
| 27 | 1.00 | 1.20 | 1.00 | .70 | .80 | .80 | 1.00 | 1.10 |
| 28 | 1.00 | 1.30 | 1.00 | .70 | .80 | .90 | 1.00 | 1.10 |
| 29 | .90 | 1.60 | 1.00 | .80 | 1.00 | .90 | .90 | 1.10 |
| 30 | .90 | 1.40 | 1.30 | .80 | .80 | .80 | .90 | 1.90 |
| 31 | 1.00 | | 1.10 | .90 | | .80 | | 1.40 |

RATING TABLE FOR IVY RIVER AT DEMOCRAT, N. C., FOR 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.70 | 32 | 0.85 | 49 | 0.95 | 62 | 1.05 | 79 |
| .75 | 37 | .90 | 55 | 1.00 | 70 | 1.10 | 88 |
| .85 | 43 | | | | | | |

SWANNANOA RIVER AT BILTMORE, N. C.

This station was established May 21, 1904, for the purpose of making miscellaneous measurements. It is located at the Biltmore, N. C., terminal of the Asheville-Biltmore electric railway line, about three-fourths of a mile above the mouth of Swannanoa River.

The channel is straight for about 1,000 feet above and curved for 300 feet below the station. The current is sluggish above and somewhat swifter below the bridge. Both banks are high and not subject to overflow. The bed of the stream is composed of sand. There is but one channel at all stages.

Discharge measurements are made from the upstream side of a single-span highway bridge.

Bench marks were established as follows: (1) The center of the center-pin bearing at the upstream end of the second floor beam from the right bank; elevation, 16.00 feet. (2) The center of the head of a small wire nail driven into a triangular-shaped blaze in the downstream side of a birch tree on the right bank, about 25 feet above the bridge; elevation, 5.74 feet. Elevations refer to the datum of the assumed gage.

DISCHARGE MEASUREMENTS OF SWANNANOA RIVER AT BILTMORE, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| May 21 | B. S. Drane | 73 | 165 | 0.86 | 1.12 | 143 |
| July 20 | ----do | 72 | 107 | .35 | .71 | 38 |
| Aug. 16 | ----do | 74 | 134 | .75 | .97 | 100 |
| 1905. | | | | | | |
| Apr. 17 | B. S. Drane | 74 | 140 | 1.19 | 1.24 | 167 |
| June 28 | ----do | 75 | 140 | 1.24 | 1.22 | 175 |
| Aug. 26 | ----do | 75 | 158 | 1.28 | 1.29 | 204 |
| 1906. | | | | | | |
| Apr. 16 | Olin P. Hall | 80 | 266 | ---- | 2.35 | 617 |

SWANNANOA RIVER AT SWANNANOA, N. C.

The station here was established on May 28, 1907, and is located at the iron highway bridge ¼ of a mile from the railroad station.

The gage is a vertical rod in two sections, the lower of which is attached to a scantling spiked to a birch tree on the right bank, about 50 feet above the bridge. The upper section is attached to the pile foundation of W. D. Patton's store.

The discharge measurements are made from the highway bridge, which is a single steel span with short approaches at each end. The banks are high, but may overflow at high floods, especially the left bank. The current is fairly good, and the bed is sand and gravel.

The bench mark is the top of the upstream end of the second floor beam from the right end of the bridge; elevation, 16.50 feet.

Discharge Measurements of Swannanoa River at Swannanoa, N. C., for 1907.

| Date. | Hydrographer. | Meter Number. | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 28 | Warren E. Hall | 54 | 112 | 0.75 | 1.65 | 84 |
| July 12 | ....do | 54 | 127 | 1.04 | 1.91 | 134 |
| July 12 | Frank P. Thomas | 54 | 128 | 1.01 | 1.89 | 130 |
| Aug. 17 | B. M. Hall, Jr. | 50 | 100 | .47 | 1.36 | 47 |
| Aug. 17 | ....do | 50 | 103 | .50 | 1.37 | 52 |
| Aug. 17 | ....do | 50 | 107 | .47 | 1.37 | 50 |
| Sept. 25 | Warren E. Hall | 49 | 109 | .61 | 1.48 | 66 |
| Sept. 25 | ....do | 49 | 109 | .58 | 1.47 | 63 |
| Dec. 11 | ....do | 55 | 111 | .96 | 1.87 | 107 |
| Dec. 12 | ....do | 55 | 106 | .87 | 1.76 | 92 |

Daily Gage Height, in Feet, of Swannanoa River at Swannanoa, N. C., for 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ..... | 2.50 | 2.10 | 1.60 | 1.10 | 1.40 | 1.20 | 1.50 |
| 2 | ..... | 2.40 | 2.00 | 1.50 | 1.10 | 1.40 | 1.10 | 1.40 |
| 3 | ..... | 2.70 | 1.90 | 1.50 | 1.30 | 1.40 | 1.10 | 1.40 |
| 4 | ..... | 2.50 | 2.10 | 1.50 | 1.30 | 1.40 | 1.10 | 1.40 |
| 5 | ..... | 2.20 | 1.90 | 1.50 | 1.20 | 1.40 | 1.20 | 1.40 |
| 6 | ..... | 2.00 | 1.80 | 1.50 | 1.20 | 1.40 | 1.20 | 1.40 |
| 7 | ..... | 2.00 | 1.80 | 1.40 | 1.30 | 1.40 | 1.30 | 1.40 |
| 8 | ..... | 2.10 | 1.70 | 1.70 | 1.30 | 1.30 | 1.30 | 1.50 |
| 9 | ..... | 2.10 | 1.70 | 1.50 | 1.20 | 1.30 | 1.30 | 1.50 |
| 10 | ..... | 2.00 | 1.70 | 1.50 | 1.40 | 1.30 | 1.40 | 2.70 |
| 11 | ..... | 2.00 | 1.70 | 1.50 | 1.40 | 1.20 | 1.40 | 2.00 |
| 12 | ..... | 1.90 | 1.90 | 1.60 | 1.30 | 1.20 | 1.40 | 1.80 |
| 13 | ..... | 1.90 | 1.90 | 1.50 | 1.20 | 1.20 | 1.40 | 1.70 |
| 14 | ..... | 1.90 | 1.70 | 1.40 | 1.20 | 1.20 | 1.40 | 2.70 |
| 15 | ..... | 1.80 | 1.80 | 1.50 | 1.20 | 1.20 | 1.40 | 2.60 |
| 16 | ..... | 1.80 | 1.90 | 1.40 | 1.20 | 1.20 | 1.40 | 2.50 |
| 17 | ..... | 1.70 | 3.45 | 1.40 | 1.20 | 1.20 | 1.50 | 1.90 |
| 18 | ..... | 1.70 | 2.50 | 1.70 | 1.20 | 1.20 | 1.50 | 1.70 |
| 19 | ..... | 1.70 | 2.10 | 1.50 | 1.20 | 1.20 | 1.50 | 1.60 |
| 20 | ..... | 1.60 | 2.00 | 1.50 | 1.10 | 1.20 | 1.50 | 1.60 |
| 21 | ..... | 1.80 | 2.00 | 1.40 | 1.10 | 1.20 | 1.80 | 1.60 |
| 22 | ..... | 1.90 | 1.80 | 1.40 | 1.10 | 1.10 | 1.90 | 1.60 |
| 23 | ..... | 2.40 | 1.80 | 1.40 | 4.80 | 1.10 | 1.95 | 3.00 |
| 24 | ..... | 2.20 | 1.80 | 1.50 | 1.90 | 1.10 | 2.00 | 2.90 |
| 25 | ..... | 2.20 | 1.70 | 1.40 | 1.50 | 1.20 | 1.90 | 2.80 |
| 26 | ..... | 2.60 | 1.60 | 1.40 | 1.40 | 1.20 | 1.90 | 2.70 |
| 27 | ..... | 2.45 | 1.60 | 1.30 | 1.30 | 1.20 | 1.80 | 2.60 |
| 28 | 1.70 | 2.70 | 1.60 | 1.20 | 1.50 | 1.30 | 1.80 | 1.80 |
| 29 | 1.60 | 2.50 | 1.60 | 1.20 | 1.40 | 1.30 | 1.70 | 1.80 |
| 30 | 1.60 | 2.30 | 2.00 | 1.10 | 1.40 | 1.20 | 1.50 | 3.05 |
| 31 | 1.70 | ..... | 2.70 | 1.20 | ..... | 1.20 | ..... | 3.00 |

DAILY GAGE HEIGHT, IN FEET, OF SWANNANOA RIVER AT SWANNANOA, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 1.70 | 2.10 | 2.00 | 2.00 | 2.00 | 1.40 | 1.70 | 2.10 | 1.50 |
| 2 | 1.90 | 1.70 | 2.10 | 2.00 | 2.00 | 2.00 | 1.40 | 1.70 | 2.00 | 1.50 |
| 3 | 1.90 | 1.70 | 2.10 | 1.90 | 1.90 | 1.90 | 1.70 | 1.60 | 1.90 | 1.50 |
| 4 | 1.90 | 1.70 | 2.00 | 1.90 | 1.90 | 1.80 | 1.70 | 1.90 | 1.90 | 1.40 |
| 5 | 2.10 | 1.70 | 2.10 | 1.90 | 1.90 | 1.80 | 1.90 | 1.90 | 3.10 | 1.40 |
| 6 | 1.90 | 1.80 | 2.10 | 1.90 | 1.90 | 1.90 | 2.45 | 1.90 | 3.60 | 1.40 |
| 7 | 1.90 | 1.70 | 2.20 | 1.90 | 2.40 | 1.90 | 2.10 | 1.90 | 2.30 | 1.40 |
| 8 | 1.90 | 1.70 | 2.10 | 1.80 | 2.00 | 1.80 | 2.50 | 1.80 | 2.10 | 1.40 |
| 9 | 1.80 | 1.70 | 2.10 | 1.80 | 2.00 | 1.80 | 2.30 | 2.10 | 2.00 | 2.80 |
| 10 | 1.80 | 1.70 | 2.10 | 1.80 | 2.00 | 1.80 | 2.00 | 1.90 | 2.00 | 3.00 |
| 11 | 2.30 | 2.00 | 2.20 | 1.80 | 1.90 | 1.80 | 1.90 | 1.80 | 1.90 | 2.80 |
| 12 | 3.80 | 2.40 | 2.50 | 1.80 | 1.90 | 1.80 | 1.80 | 1.80 | 1.90 | 2.00 |
| 13 | 3.80 | 2.90 | 2.30 | 1.70 | 1.80 | 1.70 | 1.80 | 1.70 | 1.80 | 1.80 |
| 14 | 3.60 | 3.00 | 2.20 | 1.70 | 1.80 | 1.70 | 1.90 | 1.70 | 1.60 | 1.80 |
| 15 | 4.30 | 7.80 | 2.10 | 1.90 | 1.80 | 1.70 | 1.90 | 1.60 | 1.50 | 1.70 |
| 16 | 2.20 | 4.00 | 2.10 | 2.20 | 1.70 | 1.70 | 1.70 | 1.70 | 1.50 | 1.60 |
| 17 | 2.10 | 3.80 | 2.10 | 2.10 | 2.00 | 1.60 | 1.60 | 1.70 | 1.60 | 1.60 |
| 18 | 2.10 | 3.60 | 2.10 | 2.10 | 1.80 | 1.60 | 1.50 | 1.70 | 1.60 | 1.60 |
| 19 | 1.90 | 3.60 | 2.00 | 2.00 | 2.50 | 1.60 | 1.50 | 1.70 | 1.70 | 1.60 |
| 20 | 1.90 | 3.40 | 2.20 | 2.00 | 2.10 | 1.60 | 1.50 | 1.70 | 1.60 | 1.60 |
| 21 | 1.90 | 3.00 | 2.20 | 1.90 | 1.90 | 1.60 | 1.50 | 1.60 | 1.60 | 1.60 |
| 22 | 1.90 | 2.80 | 2.20 | 1.90 | 1.90 | 1.60 | 1.50 | 2.00 | 1.60 | 1.60 |
| 23 | 1.90 | 2.40 | 3.00 | 1.90 | 1.90 | 1.60 | 2.00 | 2.20 | 1.50 | 6.10 |
| 24 | 1.80 | 2.10 | 3.50 | 1.80 | 1.90 | 1.50 | 1.70 | 4.40 | 1.60 | 3.90 |
| 25 | 1.80 | 2.10 | 2.70 | 3.40 | 1.90 | 1.50 | 1.70 | 4.20 | 1.60 | 3.80 |
| 26 | 1.80 | 2.00 | 2.50 | 2.70 | 1.90 | 1.50 | 1.60 | 3.60 | 1.50 | 3.70 |
| 27 | 1.80 | 2.10 | 2.30 | 2.40 | 2.20 | 1.50 | 1.60 | 3.00 | 1.50 | 3.40 |
| 28 | 1.80 | 2.10 | 2.30 | 2.30 | 2.20 | 1.50 | 1.60 | 2.80 | 1.50 | 2.80 |
| 29 | 1.70 | 2.10 | 2.20 | 2.20 | 2.30 | 1.40 | 1.80 | 2.40 | 1.50 | 3.80 |
| 30 | 1.70 | ..... | 2.10 | 2.10 | 2.30 | 1.40 | 2.10 | 2.20 | 1.40 | 3.00 |
| 31 | 1.70 | ..... | 2.00 | ..... | 2.10 | ..... | 1.90 | 2.10 | ..... | 2.90 |

RATING TABLE FOR SWANNANOA RIVER AT SWANNANOA, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 30 | 1.50 | 62 | 1.90 | 120 | 2.30 | 202 |
| 1.15 | 33 | 1.55 | 68 | 1.95 | 129 | 2.35 | 214 |
| 1.20 | 36 | 1.60 | 74 | 2.00 | 138 | 2.40 | 226 |
| 1.25 | 40 | 1.65 | 81 | 2.05 | 148 | 2.45 | 238 |
| 1.30 | 44 | 1.70 | 88 | 2.10 | 158 | 2.50 | 250 |
| 1.35 | 48 | 1.75 | 96 | 2.15 | 169 | | |
| 1.40 | 52 | 1.80 | 102 | 2.20 | 180 | | |
| 1.45 | 57 | 1.85 | 111 | 2.25 | 191 | | |

MUD CREEK AT NAPLES, N. C.

The station here, located at a wooden wagon bridge ½ a mile east of Naples, was established on May 10, 1907.

The staff gage is attached to the downstream vertical post of the first bent from the right end of the bridge.

Discharge measurements are made from the wagon bridge, which is a wood structure, supported by crib abutments and one bent in the middle.

Both banks are high, but will overflow at times. The bed of the stream is sandy and shifting.

The bench mark is the top of nails driven in the downstream end of the middle bent cap; elevation, 11.00 feet.

DISCHARGE MEASUREMENTS OF MUD CREEK AT NAPLES, N. C., FOR 1907.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 10 | Warren E. Hall | 33 | 79 | 2.40 | 2.41 | 188 |
| July 17 | ----do | 32 | 50 | 1.76 | 1.78 | 88 |
| July 17 | Frank P. Thomas | 32 | 51 | 1.84 | 1.78 | 94 |
| Aug. 17 | Warren E. Hall | 33 | 61 | 1.85 | 1.80 | 113 |
| Aug. 17 | ----do | 33 | 60 | 1.72 | 1.80 | 112 |
| Sept. 18 | ----do | 29 | 39 | 1.74 | 1.51 | 68 |
| Sept. 18 | ----do | 29 | 37 | 1.64 | 1.50 | 61 |
| Dec. 10 | ----do | 39 | 164 | 3.20 | 4.08 | 525 |
| Dec. 10 | ----do | 39 | 164 | 3.18 | 4.10 | 522 |

DAILY GAGE HEIGHT, IN FEET, OF MUD CREEK AT NAPLES, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 4.20 | 2.10 | 1.90 | 1.20 | 1.60 | 1.30 | 1.80 |
| 2 | ---------- | 3.00 | 2.10 | 1.90 | 1.30 | 1.40 | 1.20 | 1.50 |
| 3 | ---------- | 2.70 | 2.30 | 2.10 | 1.70 | 1.60 | 1.20 | 1.60 |
| 4 | ---------- | 2.50 | 2.20 | 2.00 | 1.80 | 1.70 | 1.30 | 1.40 |
| 5 | ---------- | 3.30 | 2.00 | 1.80 | 1.50 | 1.70 | 1.50 | 1.20 |
| 6 | ---------- | 2.20 | 1.90 | 1.90 | 1.40 | 1.70 | 1.60 | 1.10 |
| 7 | ---------- | 2.20 | 1.90 | 1.80 | 1.50 | 1.70 | 1.40 | 1.30 |
| 8 | ---------- | 2.60 | 1.80 | 1.80 | 1.80 | 1.80 | 1.60 | 1.90 |
| 9 | ---------- | 2.50 | 1.70 | 1.90 | 1.70 | 1.60 | 1.60 | 4.00 |
| 10 | 2.40 | 4.00 | 1.70 | 1.90 | 1.60 | 1.80 | 2.00 | 4.20 |
| 11 | 2.65 | 2.90 | 1.70 | 1.90 | 2.20 | 1.60 | 1.80 | 4.00 |
| 12 | 2.40 | 2.50 | 1.80 | 2.00 | 1.60 | 1.70 | 1.90 | 3.80 |
| 13 | 2.30 | 2.10 | 1.80 | 1.80 | 1.60 | 1.50 | 1.80 | 5.00 |
| 14 | 2.20 | 2.10 | 1.80 | 1.90 | 1.20 | 1.30 | 1.60 | 8.50 |
| 15 | 2.20 | 2.10 | 1.80 | 1.90 | 1.20 | 1.10 | 1.70 | 7.00 |
| 16 | 2.20 | 2.10 | 1.80 | 1.90 | 1.30 | 1.20 | 1.50 | 5.90 |
| 17 | 2.20 | 2.10 | 1.80 | 1.80 | 1.10 | 1.50 | 1.90 | 4.70 |
| 18 | 2.10 | 2.00 | 2.00 | 1.70 | 1.20 | 1.30 | 3.00 | 3.00 |
| 19 | 2.10 | 2.00 | 1.90 | 1.80 | 1.30 | 1.60 | 2.70 | 2.80 |
| 20 | 2.10 | 2.20 | 1.80 | 1.90 | 1.50 | 1.50 | 2.00 | 2.60 |
| 21 | 2.00 | 2.40 | 1.80 | 1.80 | 1.20 | 1.20 | 4.00 | 2.90 |
| 22 | 2.00 | 2.20 | 1.80 | 1.90 | 1.30 | 1.50 | 3.60 | 2.20 |
| 23 | 2.00 | 2.20 | 1.70 | 2.00 | 4.00 | 1.50 | 6.00 | 8.00 |
| 24 | 2.00 | 2.30 | 1.70 | 1.80 | 3.20 | 1.50 | 5.30 | 6.00 |
| 25 | 2.00 | 2.30 | 1.80 | 1.70 | 2.00 | 1.40 | 3.90 | 5.00 |
| 26 | 3.90 | 2.20 | 1.70 | 1.60 | 1.80 | 1.50 | 3.40 | 4.90 |
| 27 | 3.10 | 2.20 | 1.70 | 1.50 | 1.20 | 1.20 | 2.80 | 3.00 |
| 28 | 2.40 | 2.10 | 1.70 | 1.50 | 2.00 | 1.10 | 1.90 | 3.00 |
| 29 | 2.20 | 2.10 | 2.00 | 1.60 | 2.20 | 1.50 | 1.70 | 3.50 |
| 30 | 2.20 | 2.20 | 2.00 | 1.30 | 1.80 | 1.60 | 1.50 | 5.00 |
| 31 | 3.00 | ---------- | 1.90 | 1.20 | ---------- | 1.20 | ---------- | 4.90 |

RATING TABLE FOR MUD CREEK AT NAPLES, N. C., FOR 1907.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 30 | 1.60 | 72 | 2.10 | 136 | 2.60 | 230 |
| 1.15 | 33 | 1.65 | 77 | 2.15 | 145 | 2.65 | 240 |
| 1.20 | 37 | 1.70 | 82 | 2.20 | 154 | 2.70 | 250 |
| 1.25 | 41 | 1.75 | 88 | 2.25 | 163 | 2.75 | 260 |
| 1.30 | 45 | 1.80 | 94 | 2.30 | 172 | 2.80 | 270 |
| 1.35 | 49 | 1.85 | 100 | 2.35 | 181 | 2.85 | 280 |
| 1.40 | 53 | 1.90 | 106 | 2.40 | 190 | 2.90 | 290 |
| 1.45 | 57 | 1.95 | 113 | 2.45 | 200 | 2.95 | 300 |
| 1.50 | 62 | 2.00 | 120 | 2.50 | 210 | 3.00 | 310 |
| 1.55 | 67 | 2.05 | 128 | 2.55 | 220 | | |

NORTH FORK MILLS RIVER AT PINKBED, N. C.

This station was established May 18, 1904. It is located at the wagon bridge in the village of Pinkbed, N. C.

The channel is straight for about 200 feet above and below the station. The current is swift. Both banks are about 10 feet above low water and are not liable to overflow. There is a wide, level stretch of land from the left bank to the foot of the hill. The bed of the stream is composed of loose rock and is probably permanent. There is but one channel at all stages.

Discharge measurements are made from the single 39-foot span wagon bridge. The bridge rests upon log-crib abutments and the floor is about 10 feet above low water.

The gage is a vertical timber 10 feet long, spiked to the log crib on the right bank at the upper side of the bridge. It is referred to bench marks as follows: (1) A nail driven into the bottom log of the crib on the right bank, at the downstream corner of the crib; elevation, 1.70 feet. (2) The center of a nail driven into a notch on a small poplar tree on the left bank about 40 feet above the bridge; elevation, 5.70 feet. Elevations refer to the datum of the gage.

DISCHARGE MEASUREMENTS OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 21 | M. R. Hall | 36 | 27 | 1.45 | 0.70 | 39.4 |
| May 18 | B. S. Drane | 37 | 31 | 1.61 | .82 | 50.6 |
| July 18 | do | 34 | 22 | 1.23 | .56 | 27.0 |
| Aug. 18 | do | 34 | 23 | 1.40 | .64 | 33.0 |
| Oct. 3 | do | 29 | 17 | 1.11 | .47 | 18.0 |
| Oct. 3 | do | 29 | 17 | 1.01 | .47 | 17.0 |
| Dec. 9 | do | 33 | 19 | 1.17 | .52 | 22.0 |
| Dec. 9 | do | 33 | 19 | 1.08 | .52 | 20.0 |

DISCHARGE MEASUREMENTS OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C.—*Continued.*

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1905. | | | | | | |
| Apr. 12 | B. S. Drane | 39 | 51 | 1.73 | 1.28 | 88.0 |
| Apr. 12 | do | 39 | 51 | 1.75 | 1.29 | 89.0 |
| June 22 | do | 39 | 43 | 1.73 | 1.12 | 74.0 |
| June 22 | do | 39 | 43 | 1.81 | 1.12 | 78.0 |
| Aug. 29 | do | 39 | 38 | 1.94 | 1.08 | 73.0 |
| Aug. 29 | do | 39 | 38 | 1.71 | 1.08 | 66.0 |
| Nov. 11 | W. E. Hall | 38 | 24 | 1.38 | .68 | 33.0 |
| 1906. | | | | | | |
| June 14 | W. E. Hall | 38 | 81 | ---- | 2.22 | 351.0 |
| Sept. 15 | do | 39 | 40 | ---- | 1.19 | 92.0 |
| Sept. 15 | do | 39 | 41 | ---- | 1.19 | 93.0 |
| 1907. | | | | | | |
| Apr. 3 | Warren E. Hall | 37 | 25 | 1.76 | 0.95 | 44.0 |
| Apr. 3 | do | 35 | 25 | 1.84 | .95 | 46.0 |
| July 15 | do | 35 | 22 | 1.81 | .85 | 40.0 |
| Sept. 20 | do | 32 | 14 | 1.28 | .56 | 18.0 |
| Dec. 13 | do | 37 | 25 | 1.76 | .90 | 44.0 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1904.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | 0.80 | 0.60 | 0.85 | 0.60 | 0.45 | 0.45 | 0.45 |
| 2 | .85 | .55 | .65 | .65 | .45 | .45 | .45 |
| 3 | .80 | .55 | .60 | .55 | .45 | .55 | .50 |
| 4 | .70 | .50 | .65 | .55 | .45 | .90 | .50 |
| 5 | .70 | .50 | .65 | .90 | .45 | .80 | .60 |
| 6 | .65 | .50 | .70 | .70 | .45 | .50 | .70 |
| 7 | .90 | .50 | .75 | .65 | .45 | .50 | .60 |
| 8 | .75 | .50 | .95 | .60 | .45 | .50 | .50 |
| 9 | .70 | .90 | .80 | .60 | .45 | .45 | .50 |
| 10 | .70 | .70 | .85 | .55 | .45 | .45 | .55 |
| 11 | .70 | .70 | 1.35 | .60 | .45 | .45 | .50 |
| 12 | .65 | .65 | 1.15 | .60 | .45 | .45 | .50 |
| 13 | .60 | .60 | .90 | .60 | .45 | 1.00 | .50 |
| 14 | .60 | .55 | .80 | .55 | .45 | .50 | .50 |
| 15 | .60 | .55 | .75 | .55 | .45 | .50 | .50 |
| 16 | .60 | .55 | .70 | .55 | .45 | .50 | .50 |
| 17 | .70 | .70 | .70 | .55 | .45 | .50 | .50 |
| 18 | .70 | .65 | .65 | .50 | .45 | .50 | .50 |
| 19 | .70 | .55 | .60 | .50 | .45 | .50 | .45 |
| 20 | .85 | .50 | .65 | .50 | .45 | .50 | .60 |
| 21 | .70 | .55 | .60 | .50 | .45 | .50 | .60 |
| 22 | .75 | .55 | .60 | .50 | .45 | .50 | .60 |
| 23 | .65 | .60 | .60 | .50 | .45 | .50 | .45 |
| 24 | .60 | .55 | .65 | .50 | .45 | .45 | .50 |
| 25 | .60 | .55 | .65 | .50 | .45 | .45 | .50 |
| 26 | .55 | .60 | .60 | .50 | .45 | .45 | .50 |
| 27 | .60 | .55 | .80 | .50 | .45 | .45 | .70 |
| 28 | .65 | .55 | .75 | .50 | .45 | .45 | 1.00 |
| 29 | .65 | .55 | .65 | .45 | .45 | .45 | .70 |
| 30 | .65 | .55 | .55 | .45 | .45 | .45 | .70 |
| 31 | ---------- | .55 | .60 | ---------- | .45 | ---------- | .55 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.55 | 0.65 | 1.10 | 0.90 | 0.90 | 1.00 | 1.60 | 1.10 | 1.00 | 0.80 | 0.70 | 0.60 |
| 2 | .55 | .65 | 1.10 | .85 | .90 | 1.00 | 1.30 | 1.05 | 1.05 | .80 | .70 | .60 |
| 3 | .60 | .60 | 1.10 | .85 | 1.00 | .90 | 1.15 | 1.05 | 1.00 | .80 | .70 | 1.50 |
| 4 | .70 | .60 | 1.10 | .85 | .95 | .90 | 1.10 | 1.05 | 1.05 | .80 | .70 | .90 |
| 5 | .70 | .65 | 1.10 | .95 | 1.25 | .90 | 1.00 | 1.05 | .90 | .80 | .70 | .80 |
| 6 | .80 | .70 | 1.05 | .95 | 1.20 | .90 | 1.10 | 1.05 | .90 | .80 | .70 | .75 |
| 7 | .80 | .75 | 1.10 | .90 | 1.15 | .80 | 1.05 | 1.00 | .90 | .75 | .70 | .70 |
| 8 | .75 | .75 | 1.10 | .90 | 1.10 | .85 | 1.10 | 1.00 | .90 | .75 | .70 | .90 |
| 9 | .70 | .85 | 1.10 | 1.05 | 1.10 | .80 | 1.00 | 1.10 | .90 | .70 | .70 | 1.80 |
| 10 | .60 | .90 | 1.40 | .90 | 1.05 | .80 | 1.10 | 1.10 | .90 | .70 | .65 | 1.30 |
| 11 | .60 | .80 | 1.15 | .90 | 1.00 | .80 | 1.90 | 1.40 | .90 | 1.30 | .65 | .90 |
| 12 | 2.50 | .85 | 1.20 | 1.40 | 1.00 | .80 | 4.00 | 1.60 | .90 | .80 | .65 | .90 |
| 13 | 1.45 | 1.20 | 1.10 | 1.15 | 1.00 | .80 | 2.40 | 1.50 | .90 | .80 | .65 | .90 |
| 14 | 1.15 | .85 | 1.10 | 1.10 | 1.00 | .75 | 2.20 | 1.30 | .85 | .75 | .60 | .90 |
| 15 | .90 | 1.00 | 1.10 | 1.05 | 1.00 | .75 | 1.90 | 1.25 | .85 | .75 | .60 | 1.20 |
| 16 | .85 | .90 | 1.05 | 1.05 | 1.20 | 1.50 | 1.70 | 1.20 | .80 | .75 | .60 | 1.00 |
| 17 | .95 | .80 | 1.00 | 1.05 | 1.10 | 1.70 | 1.60 | 1.15 | .80 | .75 | .60 | .90 |
| 18 | .80 | .95 | 1.00 | 1.00 | 1.05 | 1.40 | 1.50 | 1.15 | .80 | .75 | .60 | .90 |
| 19 | .75 | .80 | 1.00 | 1.00 | 1.00 | 1.30 | 1.50 | 1.15 | .80 | .75 | .70 | .95 |
| 20 | .75 | .90 | .90 | 1.00 | 1.00 | 1.30 | 1.50 | 1.10 | .80 | .75 | .70 | 1.00 |
| 21 | .70 | 1.25 | 1.25 | .95 | 1.10 | 1.25 | 1.40 | 1.10 | .90 | .70 | .70 | 1.50 |
| 22 | .70 | 1.30 | 1.05 | .95 | 1.00 | 1.15 | 1.40 | 1.05 | .80 | .70 | .60 | 1.20 |
| 23 | .70 | 1.40 | 1.05 | .95 | 1.05 | 1.05 | 1.30 | 1.05 | .80 | .70 | .60 | 1.20 |
| 24 | .70 | 1.30 | 1.00 | .90 | 1.05 | 1.00 | 1.30 | 1.20 | .80 | .70 | .60 | 1.20 |
| 25 | .65 | 1.25 | 1.00 | .90 | 1.00 | 1.00 | 1.25 | 1.25 | .80 | .70 | .60 | 1.10 |
| 26 | 1.00 | 1.20 | .95 | 1.00 | 1.20 | .95 | 1.20 | 1.35 | .80 | .70 | .60 | 1.00 |
| 27 | 1.00 | 1.15 | .90 | .90 | 1.10 | 1.05 | 1.20 | 1.15 | .80 | .75 | .60 | 1.00 |
| 28 | .75 | 1.10 | .90 | .90 | 1.30 | .95 | 1.20 | 1.10 | .75 | .75 | .60 | .95 |
| 29 | .65 | ------- | .90 | 1.05 | 1.20 | .90 | 1.20 | 1.10 | .75 | .75 | .60 | 1.05 |
| 30 | .65 | ------- | 1.00 | .95 | 1.10 | 1.30 | 1.20 | 1.05 | .80 | .75 | .60 | 1.00 |
| 31 | .65 | ------- | .90 | ------- | 1.05 | ------- | 1.10 | 1.00 | ------- | .70 | ------ | .90 |
| 1906. | | | | | | | | | | | | |
| 1 | 0.90 | 1.45 | 1.00 | 1.50 | 1.05 | 0.90 | 1.20 | 1.10 | 1.50 | 2.30 | 1.25 | 1.25 |
| 2 | .90 | 1.40 | .95 | 1.40 | 1.00 | 1.10 | 1.15 | 1.10 | 1.40 | 2.30 | 1.20 | 1.20 |
| 3 | 2.20 | 1.35 | 1.50 | 1.30 | 1.00 | .90 | 1.15 | 1.15 | 1.30 | 3.10 | 1.20 | 1.20 |
| 4 | 2.00 | 1.35 | 1.30 | 1.25 | 1.00 | 1.10 | 1.10 | 1.10 | 1.25 | 2.80 | 1.20 | 1.20 |
| 5 | 1.55 | 1.30 | 1.10 | 1.30 | 1.00 | 1.20 | 1.10 | 1.10 | 1.45 | 2.45 | 1.20 | 1.20 |
| 6 | 1.40 | 1.25 | 1.10 | 1.25 | 1.00 | 1.10 | 1.10 | 1.10 | 1.45 | 2.30 | 1.20 | 1.15 |
| 7 | 1.30 | 1.25 | 1.10 | 1.20 | 1.00 | 1.00 | 1.10 | 1.10 | 1.40 | 2.10 | 1.20 | 1.15 |
| 8 | 1.20 | 1.20 | 1.10 | 1.15 | 1.00 | 1.00 | 1.10 | 1.10 | 1.30 | 1.95 | 1.15 | 1.15 |
| 9 | 1.10 | 1.15 | 1.10 | 1.10 | 1.00 | 1.00 | 1.20 | 1.10 | 1.40 | 1.85 | 1.15 | 1.15 |
| 10 | 1.10 | 1.10 | 1.05 | 1.10 | .95 | 1.00 | 1.10 | 1.05 | 1.35 | 1.80 | 1.15 | 1.15 |
| 11 | 1.10 | 1.10 | 1.00 | 1.10 | .95 | 1.10 | 1.10 | 1.00 | 1.25 | 1.70 | 1.10 | 1.15 |
| 12 | 1.20 | 1.15 | 1.00 | 1.10 | .90 | 1.20 | 1.10 | 1.00 | 1.20 | 1.65 | 1.10 | 1.15 |
| 13 | 1.15 | 1.10 | 1.00 | 1.10 | .90 | 3.70 | 1.05 | 1.00 | 1.20 | 1.60 | 1.10 | 1.10 |
| 14 | 1.20 | 1.10 | 1.00 | 1.30 | .90 | 2.40 | 1.05 | 1.10 | 1.30 | 1.55 | 1.10 | 1.10 |
| 15 | 1.15 | 1.10 | 1.50 | 1.80 | .90 | 3.70 | 1.50 | 1.10 | 1.20 | 1.55 | 1.10 | 1.10 |
| 16 | 1.15 | 1.05 | 1.15 | 1.50 | .85 | 2.30 | 1.45 | 1.10 | 1.20 | 1.50 | 1.10 | 1.10 |
| 17 | 1.10 | 1.05 | 1.10 | 1.40 | .75 | 2.10 | 1.30 | 1.10 | 1.15 | 1.50 | 1.10 | 1.10 |
| 18 | 1.10 | 1.05 | 1.05 | 1.30 | .75 | 1.90 | 1.40 | 1.10 | 2.00 | 1.55 | 1.40 | 1.10 |
| 19 | 1.10 | 1.05 | 1.60 | 1.30 | .70 | 1.70 | 1.60 | 1.10 | 3.10 | 1.60 | 2.60 | 1.10 |
| 20 | 1.05 | 1.00 | 1.40 | 1.25 | .80 | 1.60 | 1.55 | 1.05 | 2.20 | 1.55 | 1.70 | 1.15 |
| 21 | 1.05 | 1.30 | 1.40 | 1.20 | .80 | 1.50 | 1.40 | 1.15 | 1.90 | 1.50 | 1.60 | 1.15 |
| 22 | 4.00 | 1.10 | 1.35 | 1.15 | .80 | 1.50 | 1.40 | 1.10 | 1.80 | 1.45 | 1.50 | 1.15 |
| 23 | 3.00 | 1.05 | 1.20 | 1.15 | .80 | 1.40 | 1.30 | 1.05 | 1.70 | 1.40 | 1.50 | 1.10 |
| 24 | 2.20 | 1.00 | 1.10 | 1.10 | .80 | 1.40 | 1.20 | 1.05 | 1.65 | 1.40 | 1.40 | 1.10 |
| 25 | 1.90 | 1.00 | 1.10 | 1.10 | .75 | 1.35 | 1.20 | 1.00 | 1.70 | 1.40 | 1.35 | 1.10 |
| 26 | 1.80 | 1.00 | 1.10 | 1.10 | 1.60 | 1.30 | 1.20 | 1.00 | 1.60 | 1.35 | 1.30 | 1.10 |
| 27 | 1.60 | 1.10 | 1.15 | 1.10 | 1.10 | 1.30 | 1.20 | 1.05 | 1.65 | 1.30 | 1.30 | 1.10 |
| 28 | 1.55 | 1.00 | 1.10 | 1.10 | 1.05 | 1.25 | 1.15 | 1.50 | 1.80 | 1.30 | 1.30 | 1.10 |
| 29 | 1.50 | ------- | 1.55 | 1.05 | 1.00 | 1.20 | 1.10 | 1.60 | 2.40 | 1.30 | 1.25 | 1.10 |
| 30 | 1.50 | ------- | 1.80 | 1.05 | .90 | 1.20 | 1.10 | 1.70 | 2.40 | 1.25 | 1.25 | 1.10 |
| 31 | 1.50 | ------- | 1.60 | ------- | .90 | ------- | 1.10 | 1.80 | ------- | ------ | ------ | 1.80 |

Daily Gage Height, in Feet, of Mills River (North Fork) at Pinkbed, N. C., for 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.50 | 1.00 | 1.00 | 1.00 | 1.10 | 1.50 | .90 | .90 | .65 | .80 | .75 | .85 |
| 2 | 1.40 | 1.00 | 1.20 | 1.00 | 1.05 | 1.20 | .90 | .85 | .65 | .75 | 1.00 | .80 |
| 3 | 1.35 | 1.00 | 1.10 | 1.00 | 1.70 | 1.20 | .90 | .80 | .65 | .75 | .80 | .80 |
| 4 | 1.25 | 1.05 | 1.05 | 1.00 | 1.60 | 1.15 | .90 | .80 | .65 | .70 | .70 | .80 |
| 5 | 1.20 | 1.10 | 1.05 | .95 | 1.40 | 1.10 | .90 | .80 | .65 | .70 | .70 | .80 |
| 6 | 1.15 | 1.00 | 1.00 | 1.50 | 1.40 | 1.10 | .90 | .75 | .65 | .70 | .70 | .80 |
| 7 | 1.15 | 1.00 | 1.00 | 1.10 | 1.40 | 1.05 | .90 | .75 | .65 | .70 | .70 | .80 |
| 8 | 1.15 | 1.10 | 1.00 | 1.10 | 1.25 | 1.30 | .90 | .70 | .65 | .70 | .70 | .80 |
| 9 | 1.10 | 1.05 | 1.00 | 1.05 | 1.20 | 1.10 | .90 | .70 | .70 | .70 | .70 | .85 |
| 10 | 1.10 | 1.00 | 1.00 | 1.05 | 1.20 | 1.10 | .90 | .70 | .70 | .70 | .70 | 1.20 |
| 11 | 1.10 | 1.00 | 1.00 | 1.00 | 1.20 | 1.05 | .90 | .70 | .70 | .70 | .70 | 1.15 |
| 12 | 1.10 | 1.00 | 1.00 | 1.00 | 1.20 | 1.00 | .90 | .75 | .70 | .70 | .70 | 1.15 |
| 13 | 1.10 | 1.00 | 1.00 | 1.00 | 1.20 | 1.00 | .90 | .75 | .70 | .70 | .70 | .95 |
| 14 | 1.10 | 1.00 | 1.00 | 1.00 | 1.15 | 1.00 | .90 | .75 | .70 | .70 | .70 | 1.35 |
| 15 | 1.10 | .95 | 1.00 | 1.00 | 1.15 | 1.00 | .90 | .70 | .70 | .70 | .70 | 1.20 |
| 16 | 1.10 | .95 | 1.00 | 1.00 | 1.10 | 1.00 | .90 | .70 | .70 | .70 | .70 | 1.15 |
| 17 | 1.10 | .95 | 1.00 | 1.00 | 1.10 | .95 | .90 | .70 | .70 | .70 | .70 | 1.00 |
| 18 | 1.10 | .95 | 1.00 | 1.00 | 1.10 | .95 | .90 | .80 | .70 | .70 | 1.00 | 1.00 |
| 19 | 1.05 | .95 | .95 | 1.10 | 1.10 | .95 | .85 | .80 | .65 | .70 | .95 | 1.00 |
| 20 | 1.05 | .95 | .95 | 1.00 | 1.10 | 1.00 | .80 | .80 | .65 | .70 | .95 | 1.00 |
| 21 | 1.05 | .95 | .95 | 1.00 | 1.10 | 1.05 | .80 | .80 | .65 | .70 | 1.45 | .95 |
| 22 | 1.05 | .95 | .90 | 1.20 | 1.05 | 1.00 | .80 | .80 | .65 | .70 | .95 | .90 |
| 23 | 1.00 | .95 | .90 | 1.10 | 1.00 | 1.00 | .80 | .80 | 2.30 | .70 | 1.00 | 2.50 |
| 24 | 1.00 | 1.00 | .90 | 1.10 | 1.10 | 1.00 | .80 | .80 | .90 | .70 | 1.20 | 1.40 |
| 25 | 1.00 | 1.00 | .90 | 1.05 | 1.10 | 1.00 | .90 | .70 | .80 | .70 | 1.10 | 1.25 |
| 26 | 1.00 | 1.00 | .90 | 1.05 | 1.30 | .95 | .90 | .70 | .75 | .70 | 1.05 | 1.10 |
| 27 | 1.00 | 1.00 | .90 | 1.20 | 1.20 | 1.00 | .90 | .70 | .80 | .70 | 1.00 | 1.10 |
| 28 | 1.00 | 1.00 | .90 | 1.10 | 1.10 | 1.00 | .90 | .70 | .90 | .70 | .95 | 1.10 |
| 29 | 1.00 | ..... | .90 | 1.10 | 1.10 | 1.10 | .90 | .70 | .90 | .70 | .90 | 1.10 |
| 30 | 1.00 | ..... | .90 | 1.10 | 1.00 | .90 | 1.00 | .70 | .85 | .70 | .85 | 1.70 |
| 31 | 1.00 | ..... | .90 | ..... | 1.10 | ..... | .90 | .65 | ..... | .70 | ..... | 1.30 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.25 | 1.10 | 1.35 | 1.20 | 1.25 | 1.00 | 0.80 | 1.00 | 1.20 | 0.90 |
| 2 | 1.20 | 1.10 | 1.35 | 1.20 | 1.20 | 1.00 | .80 | 1.00 | 1.05 | .85 |
| 3 | 1.15 | 1.20 | 1.30 | 1.15 | 1.20 | 1.00 | .90 | .90 | 1.00 | .85 |
| 4 | 1.10 | 1.20 | 1.30 | 1.15 | 1.15 | 1.00 | 1.60 | .90 | 1.00 | .85 |
| 5 | 1.10 | 1.20 | 1.30 | 1.10 | 1.15 | 1.10 | 1.10 | .90 | 1.50 | .85 |
| 6 | 1.10 | 1.10 | 1.30 | 1.10 | 1.15 | 1.05 | 1.10 | 1.25 | 1.30 | .85 |
| 7 | 1.15 | 1.05 | 1.25 | 1.10 | 1.60 | 1.05 | 1.10 | 1.10 | 1.20 | .80 |
| 8 | 1.10 | 1.05 | 1.25 | 1.10 | 1.35 | 1.00 | 1.20 | 1.05 | 1.10 | .80 |
| 9 | 1.05 | 1.05 | 1.25 | 1.10 | 1.30 | .90 | 1.50 | 1.00 | 1.10 | 1.05 |
| 10 | 1.00 | 1.05 | 1.20 | 1.05 | 1.25 | 1.00 | 1.25 | 1.00 | 1.05 | 1.15 |
| 11 | 1.05 | 1.10 | 1.20 | 1.05 | 1.20 | 1.05 | 1.25 | 1.00 | 1.05 | 1.00 |
| 12 | 2.30 | 1.40 | 1.20 | 1.05 | 1.20 | 1.00 | 1.10 | .95 | 1.00 | .90 |
| 13 | 1.30 | 1.60 | 1.20 | 1.05 | 1.15 | .95 | 1.00 | .90 | 1.00 | .80 |
| 14 | 1.25 | 1.80 | 1.20 | 1.00 | 1.10 | .95 | .90 | .90 | 1.00 | .80 |
| 15 | 1.20 | 3.40 | 1.10 | 1.50 | 1.10 | 1.05 | .90 | .90 | 1.00 | .80 |
| 16 | 1.20 | 2.70 | 1.10 | 1.20 | 1.10 | 1.00 | .90 | .90 | 1.00 | .80 |
| 17 | 1.20 | 2.20 | 1.10 | 1.15 | 1.50 | .95 | .90 | .85 | .95 | .80 |
| 18 | 1.20 | 1.70 | 1.10 | 1.10 | 1.15 | .95 | .90 | 1.00 | .95 | .80 |
| 19 | 1.20 | 1.60 | 1.10 | 1.10 | 1.15 | .90 | .85 | .90 | .90 | .80 |
| 20 | 1.15 | 1.50 | 1.10 | 1.10 | 1.30 | .90 | .85 | .95 | .90 | .80 |
| 21 | 1.10 | 1.50 | 1.10 | 1.10 | 1.15 | .90 | .85 | .95 | .90 | .80 |
| 22 | 1.10 | 1.40 | 1.10 | 1.10 | 1.10 | .85 | .85 | 1.50 | .90 | .85 |
| 23 | 1.10 | 1.40 | 1.35 | 1.05 | 1.10 | .85 | 1.15 | 1.30 | .90 | 1.90 |
| 24 | 1.10 | 1.35 | 1.35 | 1.05 | 1.10 | .85 | .90 | 1.70 | .90 | 1.40 |
| 25 | 1.10 | 1.35 | 1.30 | 2.25 | 1.10 | .85 | .85 | 2.30 | .90 | 1.15 |
| 26 | 1.10 | 1.50 | 1.30 | 1.55 | 1.05 | .85 | .85 | 2.10 | .90 | 1.10 |
| 27 | 1.05 | 1.35 | 1.30 | 1.40 | 1.05 | .80 | .85 | 1.70 | .90 | 1.05 |
| 28 | 1.05 | 1.35 | 1.25 | 1.30 | 1.00 | .80 | 1.00 | 1.50 | 1.10 | 1.40 |
| 29 | 1.05 | 1.30 | 1.25 | 1.25 | 1.10 | .80 | 1.10 | 1.40 | .90 | 3.10 |
| 30 | 1.05 | ..... | 1.20 | 1.30 | 1.10 | .80 | 1.35 | 1.30 | .90 | 1.90 |
| 31 | 1.10 | ..... | 1.20 | ..... | 1.05 | ..... | 1.10 | 1.25 | ..... | 1.60 |

RATING TABLE FOR MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FROM JUNE 1 TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.45 | 16 | 0.70 | 39 | 0.95 | 65 | 1.20 | 95 |
| .50 | 20 | .75 | 44 | 1.00 | 71 | 1.25 | 101 |
| .55 | 24 | .80 | 49 | 1.05 | 77 | 1.30 | 107 |
| .60 | 29 | .85 | 54 | 1.10 | 83 | 1.35 | 113 |
| .65 | 34 | .90 | 59 | 1.15 | 89 | | |

The above table is applicable only for open-channel conditions. It is based upon eight discharge measurements made during 1904. It is well defined between gage heights 0.45 foot and 0.85 foot. The table has been extended above gage height 0.85 foot.

RATING TABLE FOR MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.50 | 17 | 1.10 | 73 | 1.60 | 123 | 2.10 | 177 |
| .60 | 26 | 1.20 | 83 | 1.70 | 133 | 2.20 | 188 |
| .70 | 35 | 1.30 | 93 | 1.80 | 144 | 2.30 | 199 |
| .80 | 44 | 1.40 | 103 | 1.90 | 155 | 2.40 | 211 |
| .90 | 53 | 1.50 | 113 | 2.00 | 166 | 2.50 | 223 |
| 1.00 | 63 | | | | | | |

NOTE.—The above table is based on seven discharge measurements made during 1905. It is well defined between gage heights 0.6 foot and 1.3 feet. Above 1.3 feet the table is roughly approximate.

RATING TABLE FOR MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.70 | 35 | 1.60 | 175 | 2.50 | 440 | 3.40 | 830 |
| .80 | 45 | 1.70 | 200 | 2.60 | 475 | 3.50 | 880 |
| .90 | 56 | 1.80 | 225 | 2.70 | 515 | 3.60 | 930 |
| 1.00 | 68 | 1.90 | 250 | 2.80 | 555 | 3.70 | 990 |
| 1.10 | 81 | 2.00 | 280 | 2.90 | 595 | 3.80 | 1,050 |
| 1.20 | 95 | 2.10 | 310 | 3.00 | 640 | 3.90 | 1,110 |
| 1.30 | 110 | 2.20 | 340 | 3.10 | 685 | 4.00 | 1,170 |
| 1.40 | 130 | 2.30 | 370 | 3.20 | 730 | | |
| 1.50 | 150 | 2.40 | 405 | 3.30 | 780 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1904–1906. It is fairly well defined between gage heights 0.5 foot and 1.2 feet.

RATING TABLE FOR MILLS RIVER (NORTH FORK) AT PINKBED, N. C., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.60 | 24 | 1.10 | 70 | 1.60 | 175 | 2.10 | 310 |
| .70 | 30 | 1.20 | 85 | 1.70 | 200 | 2.20 | 340 |
| .80 | 37 | 1.30 | 103 | 1.80 | 225 | 2.30 | 370 |
| .90 | 46 | 1.40 | 125 | 1.90 | 250 | 2.40 | 405 |
| 1.00 | 57 | 1.50 | 150 | 2.00 | 280 | 2.50 | 440 |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon discharge measurements made during 1904–1907. It is fairly well defined between gage heights 0.5 foot and 1.2 feet.

ESTIMATED MONTHLY DISCHARGE OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C.

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| June | 59 | 24 | 37.8 | ---- | ----- |
| July | 59 | 20 | 27.1 | ---- | ----- |
| August | 113 | 24 | 42.9 | ---- | ----- |
| September | 59 | 16 | 25.3 | ---- | ----- |
| October | 16 | 16 | 16.0 | ---- | ----- |
| November | 71 | 16 | 22.4 | ---- | ----- |
| December | 71 | 16 | 25.3 | ---- | ----- |
| 1905. | | | | | |
| January | 223 | 22 | 47.5 | 1.98 | 2.28 |
| February | 103 | 26 | 57.0 | 2.38 | 2.48 |
| March | 103 | 53 | 68.6 | 2.86 | 3.30 |
| April | 103 | 48 | 60.5 | 2.52 | 2.81 |
| May | 93 | 53 | 69.8 | 2.91 | 3.36 |
| June | 133 | 40 | 65.2 | 2.72 | 3.04 |
| July | 418 | 63 | 112.0 | 4.67 | 5.38 |
| August | 123 | 63 | 78.3 | 3.26 | 3.76 |
| September | 68 | 40 | 49.9 | 2.08 | 2.32 |
| October | 93 | 35 | 41.3 | 1.72 | 1.98 |
| November | 35 | 26 | 30.1 | 1.25 | 1.40 |
| December | 144 | 26 | 65.0 | 2.71 | 3.12 |
| The year | 418 | 26 | 62.1 | 2.59 | 35.23 |

ESTIMATED MONTHLY DISCHARGE OF MILLS RIVER (NORTH FORK) AT PINKBED, N. C.—*Con.*

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1906. | | | | | |
| January | 1,170 | 56 | 185.0 | 7.71 | 8.89 |
| February | 140 | 68 | 88.6 | 3.69 | 3.84 |
| March | 225 | 62 | 102.0 | 4.25 | 4.90 |
| April | 225 | 74 | 102.0 | 4.25 | 4.74 |
| May | 175 | 35 | 61.5 | 2.56 | 2.95 |
| June | 990 | 56 | 193.0 | 8.04 | 8.97 |
| July | 175 | 74 | 100.0 | 4.17 | 4.81 |
| August | 225 | 68 | 92.0 | 3.83 | 4.42 |
| September | 685 | 88 | 190.0 | 7.92 | 8.84 |
| October | 685 | 102 | 221.0 | 9.21 | 10.62 |
| November | 475 | 81 | 119.0 | 4.96 | 5.53 |
| December | 225 | 81 | 90.4 | 3.77 | 4.35 |
| The year | 1,170 | 35 | 129.0 | 5.03 | 72.86 |
| 1907. | | | | | |
| January | 150 | 57 | 73.3 | 3.05 | 3.52 |
| February | 70 | 52 | 56.8 | 2.37 | 2.47 |
| March | 85 | 46 | 54.7 | 2.28 | 2.63 |
| April | 150 | 52 | 66.2 | 2.76 | 3.08 |
| May | 200 | 57 | 86.3 | 3.60 | 4.15 |
| June | 150 | 46 | 66.0 | 2.75 | 3.07 |
| July | 57 | 37 | 44.8 | 1.87 | 2.16 |
| August | 46 | 27 | 33.7 | 1.40 | 1.61 |
| September | 370 | 27 | 42.7 | 1.78 | 1.99 |
| October | 37 | 30 | 30.5 | 1.27 | 1.46 |
| November | 138 | 30 | 45.7 | 1.90 | 2.12 |
| December | 440 | 37 | 80.0 | 3.33 | 3.84 |
| The year | 440 | 27 | 56.7 | 2.36 | 32.10 |

NOTE.—Values for 1906 are good.

### SOUTH FORK MILLS RIVER NEAR SITTON, N. C.

This station was established May 18, 1904. It is located about 1 mile below Sitton's Mill, Sitton, N. C.

The channel above curves about 90° in 500 feet and is straight for 200 feet below the station. The current is moderately swift, but may be rather sluggish above the station at low stages. Both banks are high and clean and are subject to overflow at extreme high water. The bed of the stream is composed of rock, and is clean and constant. There is but one channel at all stages.

Discharge measurements are made from a foot log about 150 feet above the ford. Owing to the overflowing of the banks discharge measurements cannot be made at high water.

The gage is a vertical timber 10 feet long, spiked to a white-oak tree on the right bank of the river about 40 feet above the foot log. It is read once each day by W. E. Field. Bench marks were established as follows: (1) The center of nails in the root of a white-oak tree on the right bank, 50 feet below the gage; elevation, 5.00 feet. (2) The head of a large nail driven vertically into a notch on the face toward the river of a 20-inch white-oak tree on the right bank, 25 feet above the gage; elevation, 9.94 feet. Elevations refer to the datum of the gage.

DISCHARGE MEASUREMENTS OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 21 | M. R. Hall | 47 | 79 | 1.04 | 1.00 | 82 |
| May 18 | B. S. Drane | 41 | 79 | 1.21 | 1.09 | 96 |
| July 18 | ----do | 40 | 68 | .72 | .81 | 49 |
| Aug. 18 | ----do | 41 | 74 | .93 | .98 | 69 |
| Oct. 3 | ----do | 41 | 65 | .56 | .76 | 36 |
| Oct. 3 | ----do | 41 | 65 | .54 | .76 | 35 |
| Dec. 9 | ----do | 40 | 66 | .72 | .82 | 47 |
| Dec. 9 | ----do | 40 | 66 | .74 | .82 | 49 |
| 1905. | | | | | | |
| Apr. 12 | B. S. Drane | 37 | 87 | 1.80 | 1.44 | 157 |
| Apr. 12 | ----do | 37 | 86 | 1.85 | 1.44 | 160 |
| June 22 | ----do | 40 | 86 | 1.56 | 1.28 | 135 |
| June 22 | ----do | 40 | 86 | 1.53 | 1.29 | 132 |
| Aug. 29* | ----do | 58 | 107 | 1.38 | 1.30 | 149 |
| Nov. 11* | W. E. Hall | 45 | 32 | 1.78 | .84 | 57 |
| Nov. 11* | ----do | 24 | 27 | 2.26 | .84 | 61 |
| 1906. | | | | | | |
| June 14 | W. E. Hall | 55 | 183 | ---- | 3.38 | 730 |
| Sept. 15 | ----do | 50 | 100 | ---- | 1.61 | 174 |
| Sept. 15 | ----do | 50 | 97 | ---- | 1.61 | 170 |
| 1907. | | | | | | |
| Apr. 3 | Warren E. Hall | 50 | 83 | 1.12 | 1.22 | 93 |
| Apr. 3 | ----do | 50 | 83 | 1.10 | 1.22 | 91 |
| July 15 | ----do | 50 | 83 | 1.08 | 1.27 | 90 |
| July 15 | F. P. Thomas | 50 | 83 | 1.09 | 1.27 | 91 |
| Sept. 19 | Warren E. Hall | 50 | 66 | .52 | .91 | 34 |
| Sept. 20 | ----do | 50 | 68 | .53 | .91 | 36 |
| Dec. 13 | ----do | 55 | 85 | 1.23 | 1.35 | 105 |

*Measured at different sections.

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1904.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | 1.20 | 1.05 | 1.10 | 1.15 | 0.75 | 0.70 | 0.80 |
| 2 | 1.20 | .95 | .90 | 1.05 | .75 | .75 | .80 |
| 3 | 1.05 | .90 | .85 | 1.00 | .75 | .85 | .80 |
| 4 | 1.00 | .90 | .90 | 1.90 | .75 | 1.25 | .80 |
| 5 | .95 | .90 | .90 | 1.15 | .75 | 1.00 | 1.15 |
| 6 | .90 | .85 | .90 | 1.00 | .75 | .90 | 1.15 |
| 7 | 1.65 | .85 | 1.00 | .95 | .75 | .80 | .90 |
| 8 | 1.10 | .85 | 1.10 | .90 | .75 | .80 | .85 |
| 9 | 1.00 | 1.30 | 1.05 | .90 | .75 | .80 | .80 |
| 10 | .95 | 1.00 | 1.10 | .95 | .75 | .75 | .80 |
| 11 | 1.15 | .95 | 1.80 | 1.10 | .75 | .75 | .80 |
| 12 | 1.00 | .90 | 1.65 | .95 | .75 | .75 | .80 |
| 13 | .95 | .90 | 1.30 | 1.00 | .75 | 1.10 | .80 |
| 14 | .90 | .85 | 1.10 | .90 | .70 | .90 | .70 |
| 15 | 1.00 | .80 | 1.05 | .90 | .70 | .80 | .80 |
| 16 | .95 | .80 | 1.25 | .90 | .70 | .80 | .80 |
| 17 | 1.05 | .90 | 1.00 | .85 | .70 | .80 | .80 |
| 18 | .95 | .80 | 1.00 | .85 | .70 | .80 | .80 |
| 19 | .95 | .80 | .95 | .85 | .70 | .80 | .80 |
| 20 | 1.10 | 1.45 | 1.00 | .80 | .70 | .80 | 1.00 |
| 21 | .95 | .85 | .90 | .80 | .70 | .80 | 1.00 |
| 22 | 1.00 | .90 | 1.10 | .80 | .70 | .80 | 1.00 |
| 23 | .90 | .95 | 1.00 | .80 | .70 | .80 | .80 |
| 24 | .90 | .90 | .95 | .80 | .70 | .80 | .80 |
| 25 | 1.10 | .90 | 1.45 | .80 | .70 | .75 | .80 |
| 26 | 1.10 | 1.00 | 1.20 | .80 | .70 | .75 | .80 |
| 27 | .90 | .90 | 1.50 | .80 | .75 | .75 | 1.10 |
| 28 | 1.10 | .85 | 1.30 | .80 | .70 | .75 | 1.40 |
| 29 | 1.35 | .80 | 1.10 | .80 | .70 | .75 | 1.10 |
| 30 | 1.20 | .85 | 1.05 | .80 | .70 | .80 | 1.00 |
| 31 | ---------- | .85 | 1.00 | ---------- | .70 | ---------- | 1.00 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1905 AND 1906.

| 1905. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 0.85 | 1.00 | 1.40 | 1.10 | 1.10 | 1.35 | 2.15 | 1.25 | 1.20 | 0.90 | 0.90 | 0.80 |
| 2 | .90 | 1.00 | 1.40 | 1.10 | 1.10 | 1.30 | 1.65 | 1.20 | 1.30 | .90 | .90 | .80 |
| 3 | .90 | 1.05 | 1.40 | 1.10 | 1.15 | 1.25 | 1.40 | 1.20 | 1.20 | .90 | .85 | 2.50 |
| 4 | 1.00 | 1.10 | 1.35 | 1.10 | 1.20 | 1.25 | 1.30 | 1.25 | 1.30 | 1.00 | .85 | 1.25 |
| 5 | 1.00 | 1.10 | 1.40 | 1.20 | 1.75 | 1.20 | 1.25 | 1.20 | 1.15 | .95 | .90 | 1.00 |
| 6 | 1.25 | 1.20 | 1.35 | 1.20 | 1.70 | 1.15 | 1.50 | 1.20 | 1.15 | .90 | .90 | 1.00 |
| 7 | 1.25 | 1.20 | 1.40 | 1.10 | 1.55 | 1.10 | 1.25 | 1.15 | 1.10 | .90 | .90 | .95 |
| 8 | 1.05 | 1.90 | 1.40 | 1.10 | 1.40 | 1.10 | 1.40 | 1.15 | 1.10 | .90 | .85 | 1.00 |
| 9 | 1.30 | 2.15 | 1.35 | 1.20 | 1.40 | 1.05 | 1.25 | 1.40 | 1.10 | .90 | .85 | 2.60 |
| 10 | 1.00 | 1.45 | 1.85 | 1.15 | 1.35 | 1.05 | 1.35 | 1.50 | 1.05 | .90 | .85 | 1.70 |
| 11 | 1.00 | 1.30 | 1.60 | 1.10 | 1.30 | 1.05 | 2.70 | 2.50 | 1.05 | 1.70 | .85 | 1.40 |
| 12 | 3.70 | 1.30 | 1.55 | 1.55 | 1.25 | 1.05 | 5.20 | 2.20 | 1.05 | 1.10 | .85 | 1.25 |
| 13 | 2.15 | 1.50 | 1.50 | 1.40 | 1.20 | 1.05 | 3.30 | 1.70 | 1.05 | 1.00 | .85 | 1.20 |
| 14 | 1.65 | 1.50 | 1.45 | 1.30 | 1.20 | 1.00 | 2.80 | 1.55 | 1.00 | .95 | .85 | 1.10 |
| 15 | 1.40 | 1.55 | 1.35 | 1.25 | 1.25 | 1.10 | 2.45 | 1.45 | 1.00 | .90 | .85 | 1.40 |
| 16 | 1.30 | 1.50 | 1.30 | 1.25 | 1.50 | 2.65 | 2.10 | 1.40 | 1.00 | .95 | .85 | 1.25 |
| 17 | 1.40 | 1.50 | 1.30 | 1.20 | 1.30 | 1.80 | 1.90 | 1.40 | 1.00 | .90 | .85 | 1.20 |
| 18 | 1.30 | 1.45 | 1.25 | 1.15 | 1.25 | 1.65 | 1.80 | 1.40 | 1.00 | .95 | .85 | 1.20 |
| 19 | 1.10 | 1.10 | 1.25 | 1.15 | 1.20 | 1.60 | 1.70 | 1.40 | 1.00 | .90 | .85 | 1.15 |
| 20 | 1.10 | 1.70 | 1.20 | 1.10 | 1.15 | 1.55 | 2.40 | 1.30 | 1.00 | .90 | .90 | 1.20 |
| 21 | 1.05 | 1.70 | 1.80 | 1.10 | 1.20 | 1.40 | 1.60 | 1.30 | 1.10 | .90 | .85 | 1.80 |
| 22 | 1.05 | 1.65 | 1.35 | 1.10 | 1.20 | 1.30 | 1.65 | 1.25 | 1.00 | .90 | .85 | 1.50 |
| 23 | 1.00 | 1.70 | 1.30 | 1.05 | 1.35 | 1.30 | 1.50 | 1.25 | 1.00 | .90 | .80 | 1.45 |
| 24 | 1.00 | 1.60 | 1.25 | 1.05 | 1.30 | 1.20 | 1.45 | 1.80 | .95 | .90 | .80 | 1.40 |
| 25 | 1.00 | 1.50 | 1.25 | 1.05 | 1.20 | 1.15 | 1.45 | 1.68 | .95 | .90 | .80 | 1.30 |
| 26 | 1.05 | 1.50 | 1.20 | 1.15 | 1.65 | 1.10 | 1.40 | 1.65 | .95 | .90 | .80 | 1.25 |
| 27 | 1.05 | 1.40 | 1.20 | 1.15 | 1.70 | 1.20 | 1.35 | 1.45 | .95 | .95 | .80 | 1.20 |
| 28 | 1.10 | 1.40 | 1.15 | 1.10 | 2.20 | 1.10 | 1.55 | 1.35 | .95 | .90 | .80 | 1.30 |
| 29 | 1.05 | ------- | 1.15 | 1.10 | 1.75 | 1.10 | 1.35 | 1.30 | .90 | .90 | .80 | 1.35 |
| 30 | 1.05 | ------- | 1.20 | 1.20 | 1.55 | 1.40 | 1.30 | 1.25 | .90 | .90 | .80 | 1.25 |
| 31 | 1.00 | ------- | 1.10 | ------- | 1.45 | ------- | 1.25 | 1.20 | ------- | .90 | ------ | 1.20 |
| 1903. | | | | | | | | | | | | |
| 1 | 1.15 | 1.80 | 1.35 | 2.00 | 1.45 | 1.30 | 1.55 | 1.60 | 2.15 | 3.00 | 1.65 | 1.65 |
| 2 | 1.15 | 1.75 | 1.35 | 1.85 | 1.40 | 1.50 | 1.50 | 1.55 | 1.90 | 3.80 | 1.60 | 1.60 |
| 3 | 3.00 | 1.65 | 2.30 | 1.75 | 1.40 | 1.90 | 1.70 | 1.60 | 1.85 | 5.20 | 1.60 | 1.60 |
| 4 | 2.55 | 1.60 | 1.90 | 1.70 | 1.40 | 1.70 | 1.65 | 1.60 | 1.75 | 4.00 | 1.60 | 1.60 |
| 5 | 2.00 | 1.60 | 1.70 | 1.65 | 1.35 | 2.10 | 1.55 | 1.50 | 2.60 | 3.20 | 1.60 | 1.55 |
| 6 | 1.75 | 1.55 | 1.60 | 1.60 | 1.35 | 2.00 | 1.50 | 1.50 | 2.35 | 3.30 | 1.55 | 1.60 |
| 7 | 1.60 | 1.50 | 1.55 | 1.60 | 1.35 | 1.70 | 1.50 | 1.55 | 2.20 | 2.80 | 1.55 | 1.60 |
| 8 | 1.50 | 1.50 | 1.70 | 1.55 | 1.30 | 1.55 | 1.65 | 1.45 | 2.00 | 2.65 | 1.50 | 1.55 |
| 9 | 1.40 | 1.50 | 1.55 | 1.55 | 1.30 | 1.70 | 1.65 | 1.40 | 1.90 | 2.50 | 1.50 | 1.50 |
| 10 | 1.40 | 1.45 | 1.50 | 1.55 | 1.30 | 2.10 | 1.50 | 1.40 | 1.80 | 2.35 | 1.50 | 1.75 |
| 11 | 1.35 | 1.45 | 1.50 | 1.50 | 1.30 | 1.85 | 1.45 | 1.35 | 1.70 | 2.30 | 1.50 | 1.80 |
| 12 | 1.50 | 1.50 | 1.45 | 1.50 | 1.30 | 2.40 | 1.40 | 1.30 | 1.70 | 2.25 | 1.50 | 1.60 |
| 13 | 1.40 | 1.45 | 1.40 | 1.45 | 1.25 | 5.80 | 1.40 | 1.40 | 1.80 | 2.10 | 1.45 | 1.60 |
| 14 | 1.50 | 1.45 | 1.40 | 2.50 | 1.25 | 3.70 | 1.90 | 1.55 | 1.70 | 2.05 | 1.45 | 1.55 |
| 15 | 1.40 | 1.45 | 2.05 | 2.30 | 1.25 | 4.20 | 2.40 | 1.50 | 1.65 | 2.00 | 1.45 | 1.50 |
| 16 | 1.40 | 1.40 | 1.70 | 1.90 | 1.25 | 3.70 | 2.10 | 1.45 | 1.60 | 1.95 | 1.45 | 1.50 |
| 17 | 1.35 | 1.40 | 1.60 | 1.80 | 1.20 | 2.85 | 2.10 | 1.90 | 1.60 | 2.00 | 1.55 | 1.65 |
| 18 | 1.30 | 1.40 | 1.55 | 1.70 | 1.20 | 2.45 | 2.10 | 1.75 | 4.00 | 2.35 | 4.00 | 1.60 |
| 19 | 1.30 | 1.35 | 2.35 | 1.60 | 1.20 | 2.30 | 2.35 | 1.55 | 4.80 | 2.20 | 3.90 | 1.55 |
| 20 | 1.30 | 1.35 | 2.00 | 1.60 | 1.20 | 2.10 | 2.10 | 2.70 | 3.20 | 2.05 | 2.65 | 1.60 |
| 21 | 1.25 | 1.50 | 1.80 | 1.55 | 1.20 | 2.00 | 2.00 | 1.90 | 2.65 | 2.00 | 2.30 | 1.60 |
| 22 | 5.60 | 1.50 | 1.70 | 1.55 | 1.20 | 1.90 | 1.85 | 1.80 | 2.50 | 1.95 | 2.10 | 1.55 |
| 23 | 4.30 | 1.40 | 1.65 | 1.50 | 1.15 | 1.80 | 1.75 | 1.60 | 2.30 | 1.90 | 2.00 | 1.50 |
| 24 | 2.90 | 1.40 | 1.60 | 1.50 | 1.15 | 1.80 | 1.70 | 1.75 | 2.30 | 1.90 | 1.90 | 1.50 |
| 25 | 2.45 | 1.40 | 1.55 | 1.45 | 1.15 | 1.80 | 1.65 | 1.55 | 2.35 | 1.85 | 1.85 | 1.60 |
| 26 | 2.40 | 1.35 | 1.50 | 1.40 | 1.80 | 1.80 | 1.90 | 1.65 | 2.20 | 1.80 | 1.80 | 1.90 |
| 27 | 2.20 | 1.40 | 1.55 | 1.45 | 2.25 | 1.65 | 1.75 | 1.75 | 2.25 | 1.80 | 1.75 | 1.60 |
| 28 | 2.00 | 1.35 | 1.55 | 1.40 | 1.80 | 1.70 | 1.65 | 2.40 | 2.45 | 1.75 | 1.70 | 1.50 |
| 29 | 1.90 | ------- | 2.20 | 1.40 | 1.50 | 1.60 | 1.60 | 2.90 | 3.90 | 1.70 | 1.70 | 1.40 |
| 30 | 1.85 | ------- | 2.60 | 1.40 | 1.40 | 1.60 | 1.55 | 2.30 | 3.40 | 1.70 | 1.65 | 1.40 |
| 31 | 1.85 | ------- | 2.25 | ------- | 1.35 | ------- | 1.55 | 2.60 | ------- | 1.70 | ------ | 3.20 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 1.35 | 1.30 | 1.35 | 1.35 | 2.30 | 1.30 | 1.10 | 0.95 | 1.15 | 1.00 | 1.25 |
| 2 | 1.80 | 1.35 | 2.10 | 1.25 | 1.30 | 1.85 | 1.30 | 1.10 | .95 | 1.10 | 1.30 | 1.20 |
| 3 | 1.70 | 1.35 | 1.55 | 1.25 | 2.20 | 1.70 | 1.35 | 1.10 | 1.05 | 1.05 | 1.15 | 1.20 |
| 4 | 1.70 | 1.40 | 1.45 | 1.20 | 2.15 | 1.60 | 1.30 | 1.05 | 1.10 | 1.05 | 1.05 | 1.20 |
| 5 | 1.60 | 1.50 | 1.40 | 1.20 | 1.80 | 1.55 | 1.25 | 1.05 | 1.10 | 1.05 | 1.00 | 1.25 |
| 6 | 1.60 | 1.40 | 1.35 | 1.75 | 1.70 | 1.50 | 1.25 | 1.10 | 1.00 | 1.00 | 1.00 | 1.30 |
| 7 | 1.55 | 1.35 | 1.35 | 1.45 | 1.80 | 1.45 | 1.20 | 1.05 | 1.00 | 1.00 | 1.00 | 1.20 |
| 8 | 1.55 | 1.30 | 1.40 | 1.40 | 1.65 | 1.60 | 1.15 | 1.10 | 1.00 | 1.15 | 1.00 | 1.10 |
| 9 | 1.50 | 1.30 | 1.30 | 1.40 | 1.60 | 1.50 | 1.15 | 1.05 | 1.00 | 1.05 | 1.00 | 1.40 |
| 10 | 1.50 | 1.30 | 1.35 | 1.35 | 1.55 | 1.50 | 1.15 | 1.25 | 1.10 | 1.00 | 1.05 | 2.10 |
| 11 | 1.45 | 1.30 | 1.35 | 1.30 | 1.60 | 1.40 | 1.25 | 1.15 | 1.05 | 1.00 | 1.10 | 1.50 |
| 12 | 1.45 | 1.30 | 1.30 | 1.30 | 1.50 | 1.40 | 1.20 | 1.25 | 1.00 | 1.00 | 1.05 | 1.45 |
| 13 | 1.45 | 1.30 | 1.30 | 1.30 | 1.45 | 1.35 | 1.25 | 1.10 | .95 | 1.00 | 1.05 | 1.40 |
| 14 | 1.40 | 1.30 | 1.30 | 1.30 | 1.45 | 1.35 | 1.15 | 1.10 | .95 | 1.00 | 1.00 | 2.10 |
| 15 | 1.40 | 1.25 | 1.45 | 1.25 | 1.45 | 1.35 | 1.30 | 1.10 | .95 | 1.00 | 1.00 | 1.85 |
| 16 | 1.40 | 1.25 | 1.30 | 1.25 | 1.45 | 1.30 | 1.35 | 1.10 | 1.00 | 1.00 | 1.00 | 1.65 |
| 17 | 1.40 | 1.25 | 1.30 | 1.25 | 1.40 | 1.30 | 1.30 | 1.30 | .95 | 1.00 | 1.00 | 1.55 |
| 18 | 1.40 | 1.25 | 1.30 | 1.25 | 1.40 | 1.25 | 1.40 | 1.10 | .95 | 1.00 | 1.35 | 1.50 |
| 19 | 1.40 | 1.25 | 1.30 | 1.40 | 1.35 | 1.25 | 1.25 | 1.10 | .90 | .95 | 1.20 | 1.45 |
| 20 | 1.45 | 1.25 | 1.30 | 1.25 | 1.35 | 1.60 | 1.15 | 1.05 | .90 | .95 | 1.15 | 1.40 |
| 21 | 1.40 | 1.20 | 1.25 | 1.25 | 1.30 | 1.50 | 1.10 | 1.05 | .90 | .95 | 2.45 | 1.35 |
| 22 | 1.35 | 1.20 | 1.25 | 1.35 | 1.30 | 1.35 | 1.10 | 1.10 | .95 | .95 | 1.85 | 1.35 |
| 23 | 1.35 | 1.20 | 1.20 | 1.80 | 1.30 | 1.35 | 1.15 | 1.15 | 4.10 | .95 | 2.00 | 3.10 |
| 24 | 1.35 | 1.30 | 1.20 | 1.50 | 1.30 | 1.35 | 1.15 | 1.10 | 1.30 | .95 | 2.10 | 2.10 |
| 25 | 1.30 | 1.35 | 1.20 | 1.40 | 1.40 | 1.50 | 1.40 | 1.05 | 1.15 | .95 | 1.70 | 1.85 |
| 26 | 1.35 | 1.35 | 1.25 | 1.40 | 2.60 | 1.45 | 1.20 | 1.05 | 1.10 | .95 | 1.50 | 1.70 |
| 27 | 1.30 | 1.35 | 1.25 | 1.50 | 1.75 | 1.55 | 1.15 | 1.00 | 1.05 | 1.05 | 1.40 | 1.65 |
| 28 | 1.30 | 1.30 | 1.20 | 1.40 | 1.55 | 1.55 | 1.35 | 1.00 | 1.35 | 1.05 | 1.35 | 1.60 |
| 29 | 1.30 | ------- | 1.20 | 1.40 | 1.50 | 1.40 | 1.20 | 1.00 | 1.40 | 1.00 | 1.30 | 1.50 |
| 30 | 1.30 | ------- | 1.20 | 1.35 | 1.45 | 1.30 | 1.25 | 1.00 | 1.20 | 1.00 | 1.25 | 2.45 |
| 31 | 1.30 | ------- | 1.30 | ------- | 1.60 | ------- | 1.15 | 1.00 | ------- | 1.00 | ------ | 2.00 |

DAILY GAGE HEIGHT, IN FEET, OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.80 | 1.65 | 1.95 | 1.60 | 1.70 | 1.35 | 1.15 | 1.35 | 1.70 | 1.25 |
| 2 | 1.70 | 1.55 | 2.00 | 1.60 | 1.65 | 1.35 | 1.15 | 1.30 | 1.65 | 1.25 |
| 3 | 1.65 | 1.75 | 2.00 | 1.55 | 1.60 | 1.35 | 1.40 | 1.35 | 1.60 | 1.25 |
| 4 | 1.60 | 1.55 | 1.95 | 1.50 | 1.60 | 1.35 | 1.70 | 1.30 | 1.55 | 1.25 |
| 5 | 1.85 | 1.40 | 1.90 | 1.50 | 1.55 | 1.40 | 2.55 | 1.25 | 2.45 | 1.25 |
| 6 | 1.65 | 1.50 | 1.90 | 1.55 | 1.55 | 1.40 | 2.00 | 1.50 | 2.10 | 1.25 |
| 7 | 1.65 | 1.45 | 1.85 | 1.50 | 2.35 | 1.45 | 1.95 | 1.50 | 1.80 | 1.20 |
| 8 | 1.55 | 1.40 | 1.80 | 1.50 | 1.85 | 1.40 | 1.85 | 1.40 | 1.70 | 1.20 |
| 9 | 1.50 | 1.40 | 1.75 | 1.50 | 1.80 | 1.35 | 2.20 | 1.50 | 1.65 | 1.40 |
| 10 | 1.50 | 1.40 | 1.75 | 1.50 | 1.70 | 1.35 | 1.90 | 1.40 | 1.60 | 1.90 |
| 11 | 2.45 | 1.45 | 1.70 | 1.45 | 1.65 | 1.40 | 1.65 | 1.35 | 1.55 | 1.40 |
| 12 | 3.20 | 1.80 | 1.80 | 1.40 | 1.60 | 1.30 | 1.55 | 1.30 | 1.50 | 1.35 |
| 13 | 2.30 | 2.35 | 1.70 | 1.40 | 1.60 | 1.30 | 1.45 | 1.25 | 1.50 | 1.30 |
| 14 | 2.15 | 2.45 | 1.70 | 1.40 | 1.55 | 1.40 | 1.40 | 1.20 | 1.45 | 1.30 |
| 15 | 1.95 | 6.20 | 1.65 | 1.95 | 1.55 | 1.40 | 1.40 | 1.20 | 1.40 | 1.25 |
| 16 | 1.85 | 3.00 | 1.65 | 1.75 | 1.50 | 1.35 | 1.50 | 1.30 | 1.40 | 1.25 |
| 17 | 1.80 | 2.55 | 1.65 | 1.65 | 1.70 | 1.30 | 1.35 | 1.45 | 1.40 | 1.25 |
| 18 | 1.70 | 2.20 | 1.60 | 1.60 | 1.60 | 1.30 | 1.30 | 1.60 | 1.35 | 1.25 |
| 19 | 1.65 | 2.25 | 1.60 | 1.60 | 1.65 | 1.30 | 1.30 | 1.40 | 1.35 | 1.25 |
| 20 | 1.60 | 2.10 | 2.00 | 1.50 | 1.55 | 1.30 | 1.30 | 1.45 | 1.35 | 1.20 |
| 21 | 1.60 | 2.15 | 1.85 | 1.50 | 1.55 | 1.45 | 1.25 | 1.70 | 1.30 | 1.20 |
| 22 | 1.60 | 2.10 | 1.75 | 1.50 | 1.50 | 1.30 | 1.25 | 2.90 | 1.30 | 1.35 |
| 23 | 1.55 | 2.00 | 2.05 | 1.50 | 1.45 | 1.30 | 1.50 | 3.10 | 1.30 | 2.45 |
| 24 | 1.55 | 1.95 | 2.30 | 1.45 | 1.50 | 1.25 | 1.30 | 3.95 | 1.30 | 2.00 |
| 25 | 1.60 | 1.95 | 2.00 | 2.70 | 1.45 | 1.30 | 1.25 | 4.40 | 1.30 | 1.65 |
| 26 | 1.45 | 2.05 | 1.85 | 2.15 | 1.40 | 1.25 | 1.50 | 3.15 | 1.25 | 1.55 |
| 27 | 1.60 | 1.90 | 1.80 | 1.90 | 1.45 | 1.20 | 1.25 | 2.50 | 1.25 | 1.50 |
| 28 | 1.45 | 1.80 | 1.70 | 1.80 | 1.40 | 1.20 | 1.40 | 2.25 | 1.65 | 1.75 |
| 29 | 1.45 | 1.85 | 1.65 | 1.70 | 1.40 | 1.20 | 1.70 | 2.00 | 1.35 | 2.85 |
| 30 | 1.40 | ..... | 1.65 | 1.80 | 1.50 | 1.15 | 1.60 | 1.90 | 1.30 | 2.40 |
| 31 | 1.40 | ..... | 1.60 | ..... | 1.40 | ..... | 1.45 | 1.80 | ..... | 2.10 |

RATING TABLE FOR MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FROM JUNE 1 TO DECEMBER 31, 1904.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.7 | 22 | 0.9 | 62 | 1.0 | 82 | 1.1 | 102 |
| .8 | 42 | | | | | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon eight discharge measurements made during 1904. It is well defined between gage heights 0.75 foot and 1.10 feet, and can only be considered roughly approximate above 1.1 feet. The rating curve is a tangent, the difference being 20 per tenth.

RATING TABLE FOR MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1905.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.8 | 55 | 1.7 | 206 | 2.6 | 375 | 4.0 | 670 |
| .9 | 70 | 1.8 | 224 | 2.7 | 395 | 4.2 | 716 |
| 1.0 | 86 | 1.9 | 242 | 2.8 | 415 | 4.4 | 762 |
| 1.1 | 102 | 2.0 | 260 | 2.9 | 435 | 4.6 | 809 |
| 1.2 | 119 | .1 | 279 | 3.0 | 455 | 4.8 | 857 |
| 1.3 | 136 | 2.2 | 298 | 3.2 | 497 | 5.0 | 905 |
| 1.4 | 153 | 2.3 | 317 | 3.4 | 539 | 5.2 | 955 |
| 1.5 | 170 | 2.4 | 336 | 3.6 | 582 | | |
| 1.6 | 188 | 2.5 | 355 | 3.8 | 626 | | |

NOTE.—The above table is based on seven discharge measurements made during 1905. It is well defined between gage heights 0.8 foot and 1.5 feet. The table has been extended beyond these limits. Above 1.5 feet the table is roughly approximate.

RATING TABLE FOR MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1906.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.10 | 90 | 1.90 | 250 | 2.70 | 480 | 3.50 | 780 |
| 1.20 | 107 | 2.00 | 275 | 2.80 | 515 | 3.60 | 825 |
| 1.30 | 125 | 2.10 | 300 | 2.90 | 550 | 3.70 | 870 |
| 1.40 | 145 | 2.20 | 325 | 3.00 | 585 | 3.80 | 915 |
| 1.50 | 165 | 2.30 | 355 | 3.10 | 620 | 3.90 | 960 |
| 1.60 | 185 | 2.40 | 385 | 3.20 | 660 | 4.00 | 1,005 |
| 1.70 | 205 | 2.50 | 415 | 3.30 | 700 | 4.20 | 1,100 |
| 1.80 | 225 | 2.60 | 445 | 3.40 | 740 | 4.40 | 1,200 |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1904–1906. It is well defined between gage heights 0.7 foot and 1.7 feet. Above gage height 4.1 feet the rating curve is a tangent, the difference being 50 per tenth.

RATING TABLE FOR MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.90 | 35 | 1.80 | 215 | 2.70 | 480 | 3.60 | 825 |
| 1.00 | 51 | 1.90 | 240 | 2.80 | 515 | 3.70 | 870 |
| 1.10 | 68 | 2.00 | 265 | 2.90 | 550 | 3.80 | 915 |
| 1.20 | 86 | 2.10 | 295 | 3.00 | 585 | 3.90 | 960 |
| 1.30 | 105 | 2.20 | 325 | 3.10 | 620 | 4.00 | 1,005 |
| 1.40 | 125 | 2.30 | 355 | 3.20 | 660 | 4.10 | 1,050 |
| 1.50 | 146 | 2.40 | 385 | 3.30 | 700 | | |
| 1.60 | 168 | 2.50 | 415 | 3.40 | 740 | | |
| 1.70 | 191 | 2.60 | 445 | 3.50 | 780 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon discharge measurements made during 1906 and 1907. It is well defined between gage heights 0.7 foot and 1.7 feet.

ESTIMATED MONTHLY DISCHARGE OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C.

[Drainage area, 40.5 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1904. | | | | | |
| June | 212 | 62 | 92.0 | ---- | ----- |
| July | 172 | 42 | 65.5 | ---- | ----- |
| August | 242 | 52 | 104.0 | ---- | ----- |
| September | 262 | 42 | 69.0 | ---- | ----- |
| October | 32 | 22 | 26.5 | ---- | ----- |
| November | 132 | 22 | 46.3 | ---- | ----- |
| December | 162 | 22 | 61.0 | ---- | ----- |
| 1905. | | | | | |
| January | 604 | 62 | 126.0 | 3.11 | 3.58 |
| February | 288 | 86 | 159.0 | 3.93 | 4.09 |
| March | 233 | 102 | 146.0 | 3.60 | 4.15 |
| April | 179 | 94 | 112.0 | 2.77 | 3.09 |
| May | 298 | 102 | 151.0 | 3.73 | 4.30 |
| June | 385 | 86 | 134.0 | 3.31 | 3.69 |
| July | 955 | 128 | 236.0 | 5.83 | 6.72 |
| August | 355 | 110 | 159.0 | 3.93 | 4.53 |
| September | 136 | 70 | 93.9 | 2.32 | 2.59 |
| October | 206 | 70 | 77.7 | 1.92 | 2.21 |
| November | 70 | 55 | 61.7 | 1.52 | 1.70 |
| December | 375 | 55 | 141.0 | 3.48 | 4.01 |
| The year | 955 | 55 | 133.0 | 3.29 | 44.66 |

MONTHLY DISCHARGE OF MILLS RIVER (SOUTH FORK) NEAR SITTON, N. C.—*Continued.*

[Drainage area, 40.5 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1906. | | | | | |
| January | 1,800 | 98 | 306.0 | 7.56 | 8.72 |
| February | 225 | 135 | 161.0 | 3.98 | 4.14 |
| March | 445 | 135 | 216.0 | 5.33 | 6.14 |
| April | 415 | 145 | 197.0 | 4.86 | 5.42 |
| May | 340 | 98 | 137.0 | 3.38 | 3.90 |
| June | 1,900 | 125 | 378.0 | 9.33 | 10.41 |
| July | 385 | 145 | 218.0 | 5.38 | 6.20 |
| August | 550 | 125 | 222.0 | 5.48 | 6.32 |
| September | 1,400 | 185 | 403.0 | 9.95 | 11.10 |
| October | 1,600 | 205 | 414.0 | 10.22 | 11.78 |
| November | 1,000 | 155 | 260.0 | 6.42 | 7.16 |
| December | 660 | 145 | 197.0 | 4.86 | 5.60 |
| The year | 1,900 | 98 | 259.0 | 6.40 | 86.89 |
| 1907. | | | | | |
| January | 265 | 105 | 139.0 | 3.43 | 3.95 |
| February | 146 | 86 | 106.0 | 2.62 | 2.73 |
| March | 295 | 86 | 113.0 | 2.79 | 3.22 |
| April | 215 | 86 | 118.0 | 2.91 | 3.25 |
| May | 445 | 105 | 165.0 | 4.07 | 4.69 |
| June | 355 | 96 | 144.0 | 3.56 | 3.97 |
| July | 125 | 68 | 92.5 | 2.28 | 2.63 |
| August | 105 | 51 | 66.8 | 1.65 | 1.90 |
| September | 1,050 | 35 | 92.2 | 2.28 | 2.54 |
| October | 77 | 43 | 52.9 | 1.31 | 1.51 |
| November | 400 | 51 | 108.0 | 2.67 | 2.98 |
| December | 620 | 68 | 178.0 | 4.40 | 5.07 |
| The year | 1,050 | 35 | 115.0 | 2.91 | 38.44 |

NOTE.—Values for 1906 are excellent.

## LITTLE RIVER AT CALHOUN, N. C.

This station was formerly used for miscellaneous measurements, but was equipped with a gage on May 4, 1907. It is located at a wooden wagon bridge about ½ mile above the mouth of the river, which is a tributary of the French Broad River.

The vertical gage is attached to a birch tree about 300 yards above the bridge.

Discharge measurements are made from the wagon bridge, supported by crib abutments and a central bent. The current is rather slow at low stage and is also irregular. Banks may overflow at high stages. The bed is sandy and shifting.

The bench mark is the top of the upstream end of the first wooden cross-beam from the left end of the bridge; elevation, 13.20 feet.

DISCHARGE MEASUREMENTS OF LITTLE RIVER AT CALHOUN, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| July 19 | B. S. Drane | 36 | 43 | 1.16 | 0.59 | 50 |
| Aug. 17 | ----do | 37 | 73 | 1.27 | 1.00 | 93 |
| Dec. 8 | ----do | 33 | 67 | 1.28 | 1.09 | 86 |
| 1907. | | | | | | |
| May 4 | Warren E. Hall | 42 | 104 | 1.90 | 2.00 | 198 |
| July 16 | ----do | 36 | 63 | 1.52 | 1.20 | 96 |
| Sept. 21 | ----do | 34 | 49 | 1.04 | .80 | 51 |
| Dec. 16 | ----do | 45 | 158 | 2.57 | 3.18 | 408 |

NOTE.—Gage heights of 1904 measurements not the same data as the 1907 gage.

DAILY GAGE HEIGHT, IN FEET, OF LITTLE RIVER AT CALHOUN, N. C., FOR 1907.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 3.25 | 1.25 | 0.90 | 0.80 | 1.00 | | 1.40 |
| 2 | | 2.00 | 1.20 | .90 | .80 | 1.00 | 1.50 | 1.35 |
| 3 | | 1.70 | 1.15 | .90 | 1.00 | 1.00 | | 1.30 |
| 4 | 2.00 | 1.50 | 1.10 | .80 | 1.00 | .90 | | 1.30 |
| 5 | 1.80 | 1.50 | 1.10 | .90 | .90 | .90 | .90 | 1.45 |
| 6 | 1.80 | 1.40 | 1.00 | .90 | .90 | 1.00 | .90 | 1.30 |
| 7 | 2.10 | 1.35 | .90 | 1.00 | .80 | 1.50 | .90 | 1.20 |
| 8 | 1.90 | 1.70 | .90 | 1.00 | 1.00 | 1.10 | .80 | 1.90 |
| 9 | 1.80 | 1.45 | .80 | .90 | .90 | 1.00 | .80 | 1.40 |
| 10 | 1.70 | 1.70 | .90 | .90 | .90 | 1.00 | 1.50 | 4.40 |
| 11 | 1.80 | 1.45 | 1.90 | 1.55 | .80 | .90 | 1.00 | 3.00 |
| 12 | 1.70 | 1.40 | 1.30 | 1.20 | .80 | .90 | 1.00 | 2.70 |
| 13 | 1.60 | 1.30 | 1.25 | 1.00 | .80 | .80 | 1.00 | 3.60 |
| 14 | 1.50 | 1.25 | 1.30 | 1.00 | .80 | (*) | 1.00 | 7.10 |
| 15 | 1.60 | 1.25 | 1.25 | 1.50 | .80 | (*) | .90 | 4.50 |
| 16 | 1.60 | 1.20 | 1.20 | 1.20 | .80 | (*) | .90 | 3.15 |
| 17 | 1.50 | 1.20 | 1.15 | 1.00 | .80 | (*) | .90 | 2.85 |
| 18 | 1.40 | 1.15 | 1.20 | 1.30 | .80 | (*) | 2.85 | 2.50 |
| 19 | 1.40 | 1.10 | 1.20 | 1.20 | .80 | (*) | 1.80 | 2.10 |
| 20 | 1.30 | 1.10 | 1.15 | 1.40 | (*) | (*) | 4.20 | 2.00 |
| 21 | 1.30 | 1.15 | 1.10 | 1.10 | (*) | (*) | 3.40 | 1.95 |
| 22 | 1.30 | 1.10 | 1.00 | 1.00 | 1.00 | (*) | 2.60 | 1.80 |
| 23 | 1.30 | 1.60 | .90 | 1.00 | 5.40 | (*) | 2.70 | 8.20 |
| 24 | 1.30 | 1.30 | 1.30 | 1.10 | 2.00 | (*) | 5.20 | 4.50 |
| 25 | 1.25 | 1.30 | 1.20 | 1.00 | 1.30 | (*) | 2.95 | 4.10 |
| 26 | 2.20 | 1.30 | 1.10 | .90 | 1.10 | (*) | 2.30 | 3.50 |
| 27 | 1.50 | 2.30 | 1.00 | .90 | .90 | (*) | 2.00 | 3.20 |
| 28 | 1.40 | 1.30 | 1.00 | .80 | 1.00 | (*) | 1.80 | 2.50 |
| 29 | 1.35 | 2.00 | .90 | .80 | 1.40 | (*) | 1.50 | 2.25 |
| 30 | 1.30 | | 1.00 | .80 | 1.00 | (*) | 1.20 | 4.50 |
| 31 | 1.40 | | 1.00 | .80 | | (*) | | 3.65 |

*Gage out of water.

DAILY GAGE HEIGHT, IN FEET, OF LITTLE RIVER AT CALHOUN, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | Day. | Jan. | Feb. | Mar. | Apr. | May. | June. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.00 | 1.90 | 2.65 | 2.20 | 3.40 | 1.50 | 17 | 2.60 | 3.80 | 1.90 | 3.35 | 3.00 | 1.40 |
| 2 | 2.65 | 2.00 | 2.60 | 2.10 | 3.20 | 1.45 | 18 | 2.50 | 3.70 | 1.85 | 2.75 | 2.00 | 1.30 |
| 3 | 2.45 | 2.10 | 2.55 | 2.00 | 3.00 | 1.40 | 19 | 2.30 | 3.30 | 1.80 | 2.50 | 2.50 | 1.20 |
| 4 | 2.20 | 2.10 | 2.50 | 2.00 | 2.70 | 1.35 | 20 | 2.10 | 3.10 | 2.35 | 2.40 | 2.10 | 1.15 |
| 5 | 2.70 | 2.20 | 2.35 | 1.90 | 2.45 | 2.50 | 21 | 2.00 | 3.00 | 2.50 | 2.25 | 1.85 | 1.30 |
| 6 | 2.45 | 2.15 | 2.30 | 2.00 | 2.30 | 1.70 | 22 | 2.00 | 2.90 | 3.00 | 2.20 | 1.75 | 1.25 |
| 7 | 2.50 | 2.10 | 2.20 | 2.30 | 2.85 | 1.55 | 23 | 1.95 | 2.80 | 4.40 | 2.15 | 1.70 | 1.25 |
| 8 | 2.30 | 2.00 | 2.15 | 2.00 | 2.35 | 1.45 | 24 | 1.90 | 2.75 | 5.80 | 2.10 | 2.00 | 1.35 |
| 9 | 2.15 | 2.40 | 2.10 | 2.00 | 2.15 | 1.40 | 25 | 1.85 | 2.70 | 4.10 | 5.20 | 1.90 | 1.30 |
| 10 | 2.00 | 2.90 | 2.10 | 1.90 | 2.00 | 1.55 | 26 | 1.90 | 3.70 | 3.20 | 3.40 | 1.75 | 1.25 |
| 11 | 4.20 | 3.50 | 2.45 | 1.85 | 1.90 | 1.50 | 27 | 1.85 | 3.50 | 2.75 | 3.00 | 1.60 | 1.20 |
| 12 | 8.10 | 3.90 | 2.20 | 1.80 | 1.80 | 1.45 | 28 | 1.80 | 3.00 | 2.55 | 2.90 | 1.55 | 1.15 |
| 13 | 4.20 | 4.50 | 2.10 | 1.70 | 1.80 | 1.50 | 29 | 1.90 | 2.80 | 2.40 | 2.80 | 1.60 | 1.10 |
| 14 | 3.55 | 5.80 | 2.00 | 1.70 | 1.75 | 1.60 | 30 | 1.80 | ------ | 2.30 | 3.60 | 1.70 | 1.10 |
| 15 | 3.30 | 10.00 | 2.00 | 4.20 | 1.70 | 1.55 | 31 | 1.80 | ------ | 2.25 | ------ | 1.55 | -------- |
| 16 | 2.80 | 8.40 | 2.00 | 3.40 | 1.70 | 1.50 | | | | | | | |

RATING TABLE FOR LITTLE RIVER AT CALHOUN, N. C., FOR 1907 AND 1908.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.80 | 51 | 1.40 | 119 | 2.00 | 199 | 2.60 | 298 |
| .85 | 56 | 1.45 | 125 | 2.05 | 206 | 2.65 | 307 |
| .90 | 61 | 1.50 | 131 | 2.10 | 214 | 2.70 | 316 |
| .95 | 66 | 1.55 | 137 | 2.15 | 222 | 2.75 | 325 |
| 1.00 | 71 | 1.60 | 143 | 2.20 | 230 | 2.80 | 334 |
| 1.05 | 77 | 1.65 | 150 | 2.25 | 238 | 2.85 | 343 |
| 1.10 | 83 | 1.70 | 157 | 2.30 | 246 | 2.90 | 352 |
| 1.15 | 89 | 1.75 | 164 | 2.35 | 254 | 2.95 | 361 |
| 1.20 | 95 | 1.80 | 171 | 2.40 | 262 | 3.00 | 370 |
| 1.25 | 101 | 1.85 | 178 | 2.45 | 271 | | |
| 1.30 | 107 | 1.90 | 185 | 2.50 | 280 | | |
| 1.35 | 113 | 1.95 | 192 | 2.55 | 289 | | |

## DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C.

This station was established May 19, 1904. It is located at English Bridge, about 2 miles from Davidsons River, N. C., and about 500 feet above the mouth of Avery Creek.

The channel is straight for about 500 feet above and below the station. The current is moderately swift. The right bank is high, rocky, wooded, and is not subject to overflow. The left bank is low, but is not subject to overflow. The bed of the stream is composed of rock, mostly loose bowlders and shingle, and is clean and permanent. There is but one channel at all stages.

Discharge measurements are made from the single-span wooden highway bridge, with log abutments. The floor of the bridge is about 12 feet above low water. The initial point for soundings is the edge of the wooden crib abutment on the upstream side at the left bank. The gage is a vertical timber 10 feet long, spiked to the downstream side of a maple tree on the left bank, 40 feet below the bridge. It is referred to bench marks as follows: (1) Two wire nails driven into the down-

stream side of the tree to which the gage is attached; elevation, 4.00 feet. (2) A cross cut on the top of solid rock at edge of water, 8 feet below the bridge, at right bank; elevation, 1.48 feet. (3) The top of the head of a large nail driven horizontally into an 18-inch white-oak tree on the left bank, just upstream from the end of the bridge; the nail is in the quarter of the tree downstream and away from the river, and about 5 feet above the root of the tree; elevation, 14.12 feet. Elevations refer to datum of the gage.

DISCHARGE MEASUREMENTS OF DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| Apr. 20 | M. R. Hall | 65 | 105 | 0.79 | 1.00 | 83 |
| May 19 | B. S. Drane | 66 | 108 | .77 | 1.05 | 84 |
| July 19 | ....do | 64 | 88 | .46 | .78 | 41 |
| July 19 | ....do | 64 | 86 | .47 | .78 | 41 |
| Aug. 17 | ....do | 68 | 99 | .72 | .99 | 71 |
| Oct. 4 | ....do | 63 | 86 | .47 | .79 | 40 |
| Dec. 8 | ....do | 63 | 88 | .57 | .85 | 51 |
| Dec. 8 | ....do | 63 | 88 | .62 | .85 | 55 |
| 1905. | | | | | | |
| Apr. 13 | B. S. Drane | 71 | 128 | 1.03 | 1.25 | 132 |
| Apr. 13 | ....do | 71 | 128 | 1.04 | 1.24 | 133 |
| June 23 | ....do | 67 | 116 | .98 | 1.16 | 113 |
| June 23 | ....do | 67 | 116 | .99 | 1.16 | 115 |
| Aug. 30 | ....do | 66 | 111 | .85 | 1.08 | 94 |
| Aug. 30 | ....do | 66 | 111 | .88 | 1.08 | 98 |
| Nov. 14 | W. E. Hall | 64 | 90 | .42 | .75 | 38 |
| 1906. | | | | | | |
| Mar. 6 | W. E. Hall | 67 | 124 | .... | 1.25 | 129 |
| June 15 | ....do | 77 | 236 | .... | 2.74 | 1,020 |
| 1907. | | | | | | |
| Apr. 5 | Warren E. Hall | 68 | 98 | 0.69 | 0.90 | 68 |
| May 4 | ....do | 70 | 128 | 1.18 | 1.30 | 151 |
| July 16 | ....do | 70 | 109 | .85 | 1.05 | 93 |
| Sept. 21 | ....do | 75 | 88 | .38 | .72 | 34 |
| Dec. 14 | ....do | 70 | 156 | 1.76 | 1.62 | 275 |

Daily Gage Height, in Feet, of Davidsons River near Davidsons River, N. C., for 1904.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | 1.05 | 0.85 | 1.05 | 1.10 | 0.80 | 0.75 | 0.75 |
| 2 | 1.10 | .85 | 1.00 | 1.10 | .80 | .75 | .75 |
| 3 | 1.05 | .80 | .90 | 1.05 | .80 | .90 | .80 |
| 4 | 1.00 | .80 | 1.00 | 1.05 | .80 | 1.20 | .80 |
| 5 | .95 | .80 | .90 | 1.05 | .80 | 1.00 | 1.15 |
| 6 | .95 | .80 | .90 | 1.00 | .80 | .80 | 1.05 |
| 7 | 1.15 | .85 | .90 | 1.00 | .80 | .80 | .90 |
| 8 | 1.05 | .90 | 1.10 | .95 | .80 | .80 | .85 |
| 9 | 1.00 | .85 | 1.00 | 1.00 | .80 | .75 | .85 |
| 10 | .95 | .85 | 1.45 | .95 | .75 | .75 | .85 |
| 11 | 1.10 | .90 | 1.50 | 1.00 | .75 | .75 | .80 |
| 12 | 1.00 | .90 | 1.40 | 1.00 | .75 | .75 | .80 |
| 13 | 1.00 | .90 | 1.25 | 1.00 | .75 | 1.10 | .80 |
| 14 | .95 | .90 | 1.10 | .95 | .75 | .85 | .80 |
| 15 | .90 | .80 | 1.05 | .95 | .75 | .80 | .80 |
| 16 | .90 | .75 | 1.05 | .90 | .75 | .80 | .80 |
| 17 | 1.00 | .85 | 1.00 | .90 | .75 | .80 | .80 |
| 18 | .95 | .80 | .95 | .90 | .75 | .80 | .80 |
| 19 | .95 | .80 | .90 | .90 | .75 | .75 | .80 |
| 20 | .95 | 1.00 | .90 | .85 | .75 | .75 | .80 |
| 21 | .90 | 1.05 | .95 | .85 | .75 | .75 | .80 |
| 22 | .95 | .90 | 1.05 | .85 | .75 | .75 | .80 |
| 23 | .90 | .90 | 1.15 | .85 | .75 | .75 | .80 |
| 24 | .90 | .85 | 1.25 | .85 | .75 | .75 | .80 |
| 25 | .90 | .90 | 1.65 | .85 | .75 | .75 | .85 |
| 26 | .90 | .85 | 1.60 | .85 | .75 | .75 | .80 |
| 27 | .85 | .85 | 1.55 | .85 | .75 | .75 | 1.30 |
| 28 | .85 | .80 | 1.40 | .85 | .75 | .75 | 1.30 |
| 29 | .95 | 1.00 | 1.25 | .80 | .75 | .75 | 1.10 |
| 30 | .90 | .90 | 1.20 | .80 | .75 | .80 | 1.05 |
| 31 | ---------- | .95 | 1.10 | ---------- | .75 | ---------- | 1.00 |

DAILY GAGE HEIGHT, IN FEET, OF DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C., FOR 1905 AND 1906.

| 1905. (Day) | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.90 | 0.90 | 1.20 | 1.05 | 1.05 | 1.15 | 1.70 | 1.05 | 1.05 | 0.80 | 0.80 | 0.75 |
| 2 | .90 | .90 | 1.20 | 1.05 | 1.05 | 1.10 | 1.30 | 1.05 | 1.10 | .80 | .80 | .75 |
| 3 | .95 | .90 | 1.20 | 1.00 | 1.20 | 1.10 | 1.15 | 1.05 | 1.05 | .80 | .80 | 1.55 |
| 4 | .90 | 1.10 | 1.20 | 1.00 | 1.20 | 1.05 | 1.10 | 1.05 | 1.05 | .90 | .80 | 1.10 |
| 5 | .90 | 1.10 | 1.20 | 1.15 | 1.35 | 1.05 | 1.05 | 1.10 | 1.00 | .85 | .80 | .95 |
| 6 | 1.25 | 1.15 | 1.15 | 1.10 | 1.50 | 1.00 | 1.25 | 1.05 | 1.00 | .80 | .80 | .95 |
| 7 | 1.10 | 1.05 | 1.20 | 1.05 | 1.40 | 1.00 | 1.15 | 1.05 | 1.00 | .80 | .80 | .90 |
| 8 | 1.00 | 1.05 | 1.15 | 1.00 | 1.30 | 1.00 | 1.25 | 1.35 | 1.00 | .80 | .80 | 1.20 |
| 9 | .95 | 1.40 | 1.25 | 1.15 | 1.25 | .95 | 1.15 | 1.20 | .95 | .80 | .80 | 1.80 |
| 10 | .95 | 1.35 | 1.55 | 1.05 | 1.20 | .95 | 1.10 | 1.60 | .95 | .90 | .80 | 1.35 |
| 11 | .95 | 1.15 | 1.30 | 1.05 | 1.15 | .95 | 2.60 | 2.15 | .95 | 1.30 | .80 | 1.20 |
| 12 | 1.60 | 1.30 | 1.30 | 1.40 | 1.15 | .95 | 2.95 | 2.00 | 1.00 | .90 | .80 | 1.10 |
| 13 | 1.60 | 1.70 | 1.25 | 1.25 | 1.10 | .90 | 2.05 | 1.75 | .95 | .85 | .75 | 1.05 |
| 14 | 1.40 | 1.30 | 1.25 | 1.20 | 1.10 | .90 | 1.90 | 1.60 | .95 | .85 | .75 | 1.00 |
| 15 | 1.25 | 1.30 | 1.20 | 1.15 | 1.05 | .90 | 1.70 | 1.50 | .90 | .85 | .75 | 1.45 |
| 16 | 1.20 | 1.30 | 1.20 | 1.10 | 1.30 | 1.35 | 1.60 | 1.40 | .90 | .85 | .75 | 1.15 |
| 17 | 1.15 | 1.15 | 1.15 | 1.10 | 1.15 | 1.15 | 1.50 | 1.35 | .90 | .80 | .75 | 1.10 |
| 18 | 1.10 | 1.15 | 1.15 | 1.05 | 1.10 | 1.10 | 1.45 | 1.30 | .90 | .80 | .75 | 1.05 |
| 19 | 1.05 | 1.05 | 1.10 | 1.05 | 1.10 | 1.30 | 1.45 | 1.30 | .90 | .80 | .75 | 1.00 |
| 20 | 1.05 | 1.60 | 1.10 | 1.05 | 1.05 | 1.30 | 1.40 | 1.25 | .90 | .80 | .85 | 1.15 |
| 21 | 1.00 | 1.55 | 1.30 | 1.00 | 1.10 | 1.20 | 1.35 | 1.25 | .90 | .80 | .80 | 1.50 |
| 22 | 1.00 | 1.50 | 1.20 | 1.00 | 1.05 | 1.30 | 1.30 | 1.20 | .90 | .80 | .75 | 1.30 |
| 23 | 1.00 | 1.45 | 1.15 | 1.00 | 1.15 | 1.15 | 1.25 | 1.20 | .85 | .80 | .75 | 1.25 |
| 24 | .95 | 1.35 | 1.15 | 1.00 | 1.15 | 1.10 | 1.25 | 1.20 | .85 | .80 | .75 | 1.20 |
| 25 | .95 | 1.30 | 1.10 | 1.00 | 1.20 | 1.05 | 1.20 | 1.20 | .85 | .82 | .80 | 1.15 |
| 26 | 1.00 | 1.30 | 1.10 | 1.15 | 1.50 | 1.00 | 1.20 | 1.20 | .85 | .87 | .75 | 1.10 |
| 27 | 1.00 | 1.25 | 1.10 | 1.05 | 1.45 | 1.00 | 1.15 | 1.15 | .85 | .85 | .75 | 1.10 |
| 28 | 1.00 | 1.25 | 1.05 | 1.00 | 1.45 | .95 | 1.20 | 1.10 | .85 | .80 | .75 | 1.05 |
| 29 | .95 | ..... | 1.05 | 1.00 | 1.30 | .98 | 1.15 | 1.10 | .80 | .80 | .75 | 1.20 |
| 30 | .95 | ..... | 1.10 | 1.10 | 1.20 | 1.10 | 1.15 | 1.10 | .80 | .80 | .75 | 1.10 |
| 31 | .90 | ..... | 1.05 | ..... | 1.20 | ..... | 1.10 | 1.05 | ..... | .80 | ..... | 1.10 |
| 1906. | | | | | | | | | | | | |
| 1 | 1.05 | 1.45 | 1.10 | 1.50 | 1.10 | 1.05 | 1.25 | 1.40 | 1.60 | 2.10 | 1.20 | 1.20 |
| 2 | 1.00 | 1.40 | 1.10 | 1.45 | 1.10 | 1.20 | 1.50 | 1.40 | 1.50 | 2.60 | 1.20 | 1.20 |
| 3 | 2.50 | 1.35 | 1.90 | 1.40 | 1.10 | 1.30 | 1.65 | 1.45 | 1.45 | 3.20 | 1.20 | 1.20 |
| 4 | 1.90 | 1.30 | 1.45 | 1.35 | 1.10 | 1.25 | 1.60 | 1.40 | 1.40 | 2.50 | 1.20 | 1.15 |
| 5 | 1.55 | 1.30 | 1.30 | 1.30 | 1.10 | 1.65 | 1.45 | 1.40 | 1.95 | 2.10 | 1.15 | 1.15 |
| 6 | 1.40 | 1.30 | 1.25 | 1.30 | 1.10 | 1.50 | 1.40 | 1.45 | 1.75 | 2.10 | 1.15 | 1.15 |
| 7 | 1.30 | 1.25 | 1.20 | 1.25 | 1.10 | 1.30 | 1.35 | 1.42 | 1.60 | 1.90 | 1.15 | 1.25 |
| 8 | 1.25 | 1.25 | 1.35 | 1.25 | 1.05 | 1.20 | 1.30 | 1.35 | 1.55 | 1.80 | 1.15 | 1.15 |
| 9 | 1.25 | 1.25 | 1.25 | 1.30 | 1.05 | 1.15 | 1.40 | 1.30 | 1.75 | 1.75 | 1.10 | 1.10 |
| 10 | 1.20 | 1.20 | 1.20 | 1.25 | 1.05 | 1.55 | 1.30 | 1.30 | 1.40 | 1.65 | 1.10 | 1.50 |
| 11 | 1.15 | 1.20 | 1.20 | 1.20 | 1.00 | 1.45 | 1.25 | 1.25 | 1.35 | 1.65 | 1.10 | 1.35 |
| 12 | 1.25 | 1.25 | 1.15 | 1.20 | 1.00 | 1.75 | 1.25 | 1.20 | 1.35 | 1.60 | 1.10 | 1.30 |
| 13 | 1.25 | 1.20 | 1.15 | 1.20 | 1.00 | 3.50 | 1.20 | 1.30 | 1.40 | 1.55 | 1.10 | 1.20 |
| 14 | 1.30 | 1.20 | 1.15 | 1.70 | 1.00 | 2.20 | 1.20 | 1.25 | 1.30 | 1.50 | 1.10 | 1.20 |
| 15 | 1.20 | 1.20 | 1.70 | 1.70 | 1.00 | 2.50 | 2.15 | 1.40 | 1.30 | 1.50 | 1.10 | 1.15 |
| 16 | 1.25 | 1.15 | 1.35 | 1.50 | 1.00 | 2.10 | 1.85 | 1.30 | 1.30 | 1.45 | 1.15 | 1.10 |
| 17 | 1.20 | 1.15 | 1.30 | 1.40 | .95 | 2.00 | 1.95 | 1.60 | 1.25 | 1.45 | 1.15 | 1.25 |
| 18 | 1.15 | 1.15 | 1.25 | 1.35 | .95 | 1.80 | 1.85 | 1.50 | 2.70 | 1.70 | 2.85 | 1.25 |
| 19 | 1.15 | 1.10 | 1.60 | 1.30 | 1.00 | 1.70 | 1.70 | 1.60 | 3.00 | 1.55 | 2.45 | 1.35 |
| 20 | 1.15 | 1.10 | 1.50 | 1.30 | 1.00 | 1.60 | 1.60 | 1.50 | 2.00 | 1.50 | 1.80 | 1.25 |
| 21 | 1.15 | 1.45 | 1.40 | 1.25 | .95 | 1.50 | 1.50 | 1.40 | 1.80 | 1.45 | 1.60 | 1.20 |
| 22 | 4.10 | 1.25 | 1.35 | 1.25 | .95 | 1.45 | 1.45 | 1.35 | 1.70 | 1.40 | 1.50 | 1.20 |
| 23 | 2.60 | 1.15 | 1.30 | 1.20 | .95 | 1.40 | 1.40 | 1.35 | 1.85 | 1.40 | 1.40 | 1.15 |
| 24 | 2.05 | 1.15 | 1.25 | 1.20 | .95 | 1.45 | 1.40 | 1.45 | 1.75 | 1.35 | 1.40 | 1.20 |
| 25 | 1.80 | 1.15 | 1.25 | 1.20 | .90 | 1.40 | 1.40 | 1.35 | 1.80 | 1.35 | 1.30 | 1.85 |
| 26 | 1.75 | 1.10 | 1.20 | 1.15 | 1.70 | 1.35 | 1.65 | 1.45 | 1.70 | 1.30 | 1.30 | 1.90 |
| 27 | 1.60 | 1.20 | 1.30 | 1.15 | 1.60 | 1.30 | 1.70 | 1.40 | 1.75 | 1.30 | 1.30 | 1.95 |
| 28 | 1.55 | 1.10 | 1.20 | 1.15 | 1.40 | 1.25 | 1.65 | 1.35 | 2.00 | 1.30 | 1.25 | 1.20 |
| 29 | 1.50 | ..... | 1.75 | 1.15 | 1.25 | 1.25 | 1.50 | 1.50 | 2.50 | 1.25 | 1.20 | 1.10 |
| 30 | 1.50 | ..... | 2.00 | 1.15 | 1.15 | 1.25 | 1.45 | 1.50 | 2.60 | 1.25 | 1.20 | 1.20 |
| 31 | 1.50 | ..... | 1.70 | ..... | 1.10 | ..... | 1.40 | 1.80 | ..... | 1.25 | ..... | 1.95 |

Daily Gage Height, in Feet, of Davidsons River near Davidsons River, N. C., for 1907.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.50 | 1.10 | 1.50 | 0.95 | 1.00 | 1.90 | 0.85 | 0.80 | 0.75 | 0.95 | 0.75 | 0.95 |
| 2 | 1.35 | 1.05 | 1.20 | .90 | 1.00 | 1.25 | .80 | .80 | .70 | .90 | 1.10 | .95 |
| 3 | 1.30 | 1.00 | 1.10 | .90 | 1.40 | 1.25 | .80 | .80 | .80 | .90 | .85 | .95 |
| 4 | 1.25 | 1.25 | 1.10 | .90 | 1.45 | 1.10 | .80 | .80 | .80 | .85 | .80 | .95 |
| 5 | 1.20 | 1.20 | 1.05 | .90 | 1.20 | 1.05 | .80 | .75 | .75 | .85 | .80 | 1.00 |
| 6 | 1.20 | 1.10 | 1.00 | 1.60 | 1.15 | 1.00 | .80 | .85 | .70 | .80 | .75 | 1.20 |
| 7 | 1.20 | 1.10 | 1.00 | 1.10 | 1.35 | 1.00 | .80 | .75 | .70 | .80 | .75 | 1.05 |
| 8 | 1.15 | 1.05 | 1.10 | 1.05 | 1.25 | 1.50 | .80 | .80 | .80 | .90 | .75 | .90 |
| 9 | 1.15 | 1.05 | 1.00 | 1.05 | 1.20 | 1.05 | .80 | .75 | .75 | .80 | .75 | 1.25 |
| 10 | 1.10 | 1.00 | 1.10 | 1.00 | 1.20 | 1.00 | .80 | .75 | .90 | .80 | .80 | 1.60 |
| 11 | 1.10 | 1.00 | 1.05 | 1.00 | 1.20 | 1.00 | .80 | 1.25 | .85 | .80 | (*) | 1.25 |
| 12 | 1.10 | 1.00 | 1.05 | 1.00 | 1.10 | 1.00 | .80 | .95 | .75 | .80 | (*) | 1.05 |
| 13 | 1.10 | 1.00 | 1.00 | .95 | 1.10 | .95 | .90 | .80 | .75 | .75 | (*) | 1.10 |
| 14 | 1.05 | .95 | 1.10 | .95 | 1.10 | .95 | .80 | .90 | .75 | .75 | (*) | 1.70 |
| 15 | 1.05 | .95 | 1.05 | 1.00 | 1.15 | .95 | 1.30 | .90 | .75 | .75 | (*) | 1.40 |
| 16 | 1.05 | .95 | 1.00 | .95 | 1.05 | .90 | 1.10 | .90 | .75 | .75 | (*) | 1.30 |
| 17 | 1.10 | .95 | 1.00 | .95 | 1.05 | .90 | 1.00 | .90 | .75 | .75 | .75 | 1.20 |
| 18 | 1.00 | .95 | 1.00 | .90 | 1.05 | .90 | .90 | .90 | .75 | .75 | 1.20 | 1.25 |
| 19 | 1.00 | .95 | 1.00 | 1.15 | 1.00 | .90 | .90 | .85 | .75 | .75 | .95 | 1.20 |
| 20 | 1.20 | .95 | 1.00 | .95 | .95 | .90 | .90 | .80 | .75 | .75 | .80 | 1.10 |
| 21 | 1.05 | .90 | .95 | .95 | .95 | .90 | .85 | .90 | .70 | .75 | 1.70 | 1.10 |
| 22 | 1.00 | .90 | .95 | 1.20 | .95 | .90 | .80 | .90 | .90 | .75 | 1.25 | 1.50 |
| 23 | 1.00 | .90 | .90 | 1.30 | 1.40 | .90 | .80 | .90 | 2.70 | .75 | 1.60 | 2.10 |
| 24 | 1.00 | 1.00 | .90 | 1.20 | 1.00 | .90 | 1.15 | .85 | 1.05 | .75 | 1.60 | 1.50 |
| 25 | 1.00 | 1.10 | .90 | 1.10 | 1.00 | .90 | 1.25 | .80 | .95 | .75 | 1.30 | 1.40 |
| 26 | 1.00 | 1.05 | 1.05 | 1.05 | 1.40 | .85 | .85 | .80 | .90 | .75 | 1.20 | 1.30 |
| 27 | 1.00 | 1.00 | .95 | 1.20 | 1.05 | .85 | .80 | .80 | .85 | .90 | 1.10 | 1.25 |
| 28 | 1.00 | 1.00 | .95 | 1.05 | 1.00 | .95 | 1.05 | .75 | 1.30 | .80 | 1.05 | 1.75 |
| 29 | .95 | ..... | .90 | 1.00 | .95 | 1.00 | .90 | .75 | 1.15 | .75 | 1.00 | 1.20 |
| 30 | .95 | ..... | .90 | 1.00 | .95 | .85 | .85 | .75 | 1.00 | .75 | 1.00 | 2.20 |
| 31 | .95 | ..... | 1.00 | ..... | 1.20 | ..... | .80 | .75 | ..... | .75 | ..... | 1.45 |

*No record on book or on card.

DAILY GAGE HEIGHT, IN FEET, OF DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C., FOR 1908.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.35 | 1.25 | 1.45 | 1.25 | 1.30 | 1.15 | .95 | .95 | 1.25 | 1.00 |
| 2 | 1.30 | 1.20 | 1.40 | 1.25 | 1.30 | 1.15 | 1.00 | .95 | 1.20 | .95 |
| 3 | 1.25 | 1.35 | 1.40 | 1.20 | 1.25 | 1.10 | 1.25 | .95 | 1.20 | .95 |
| 4 | 1.20 | 1.45 | 1.35 | 1.20 | 1.20 | 1.10 | 1.75 | 1.00 | 1.15 | .90 |
| 5 | 1.35 | 1.10 | 1.35 | 1.20 | 1.20 | 1.35 | 1.80 | 1.20 | 1.65 | .90 |
| 6 | 1.30 | 1.20 | 1.35 | 1.20 | 1.20 | 1.15 | 1.40 | 1.10 | 1.45 | .90 |
| 7 | 1.30 | 1.15 | 1.30 | 1.15 | 1.90 | 1.20 | 1.50 | 1.05 | 1.40 | .90 |
| 8 | 1.20 | 1.15 | 1.30 | 1.15 | 1.40 | 1.15 | 1.45 | 1.10 | 1.30 | .90 |
| 9 | 1.15 | 1.10 | 1.30 | 1.15 | 1.35 | 1.15 | 1.35 | 1.15 | 1.25 | 1.30 |
| 10 | 1.10 | 1.15 | 1.25 | 1.10 | 1.30 | 1.10 | 1.30 | 1.05 | 1.25 | 1.20 |
| 11 | 2.00 | 1.25 | 1.25 | 1.10 | 1.25 | 1.10 | 1.20 | 1.00 | 1.20 | 1.00 |
| 12 | 2.10 | 1.55 | 1.45 | 1.10 | 1.20 | 1.10 | 1.15 | 1.10 | 1.15 | 1.00 |
| 13 | 1.65 | 1.70 | 1.25 | 1.10 | 1.20 | 1.15 | 1.15 | 1.00 | 1.10 | .95 |
| 14 | 1.50 | 1.80 | 1.25 | 1.10 | 1.20 | 1.15 | 1.15 | .95 | 1.10 | .95 |
| 15 | 1.45 | 3.20 | 1.20 | 1.70 | 1.15 | 1.50 | 1.15 | .95 | 1.05 | .95 |
| 16 | 1.40 | 2.05 | 1.20 | 1.45 | 1.15 | 1.15 | 1.10 | .95 | 1.05 | .95 |
| 17 | 1.35 | 1.80 | 1.20 | 1.35 | 1.50 | 1.10 | 1.05 | .95 | 1.05 | .95 |
| 18 | 1.30 | 1.65 | 1.15 | 1.30 | 1.30 | 1.10 | 1.05 | .95 | 1.00 | .90 |
| 19 | 1.25 | 1.60 | 1.15 | 1.25 | 1.35 | 1.05 | 1.05 | 1.10 | 1.00 | .90 |
| 20 | 1.25 | 1.55 | 1.35 | 1.20 | 1.20 | 1.05 | 1.00 | 1.10 | 1.00 | .90 |
| 21 | 1.25 | 1.50 | 1.40 | 1.20 | 1.20 | 1.10 | 1.00 | 1.05 | 1.00 | .90 |
| 22 | 1.20 | 1.45 | 1.30 | 1.15 | 1.15 | 1.10 | 1.00 | 2.00 | 1.00 | .90 |
| 23 | 1.20 | 1.40 | 1.75 | 1.15 | 1.10 | 1.05 | 1.10 | 1.55 | 1.00 | 1.80 |
| 24 | 1.15 | 1.40 | 1.80 | 1.15 | 1.15 | 1.05 | 1.00 | 2.50 | 1.00 | 1.30 |
| 25 | 1.30 | 1.35 | 1.55 | 2.25 | 1.15 | 1.05 | 1.10 | 2.65 | 1.00 | 1.15 |
| 26 | 1.15 | 1.40 | 1.45 | 1.60 | 1.15 | 1.00 | 1.05 | 2.00 | .95 | 1.10 |
| 27 | 1.25 | 1.30 | 1.40 | 1.45 | 1.25 | 1.00 | 1.00 | 1.65 | .95 | 1.05 |
| 28 | 1.15 | 1.35 | 1.35 | 1.40 | 1.15 | 1.00 | 1.05 | 1.55 | 1.20 | 1.30 |
| 29 | 1.10 | 1.30 | 1.25 | 1.35 | 1.45 | .95 | 1.00 | 1.45 | 1.10 | 2.30 |
| 30 | 1.10 | ..... | 1.25 | 1.40 | 1.30 | .95 | 1.00 | 1.35 | 1.00 | 1.45 |
| 31 | 1.10 | ..... | 1.25 | ..... | 1.20 | ..... | .95 | 1.30 | ..... | 1.30 |

RATING TABLE FOR DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C., FROM JUNE 1, 1904, TO DECEMBER 31, 1905.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.60 | 24 | 1.30 | 146 | 2.00 | 342 | 2.70 | 587 |
| .70 | 32 | 1.40 | 171 | 2.10 | 374 | 2.80 | 626 |
| .80 | 44 | 1.50 | 197 | 2.20 | 407 | 2.90 | 666 |
| .90 | 60 | 1.60 | 224 | 2.30 | 441 | 3.00 | 707 |
| 1.00 | 79 | 1.70 | 252 | 2.40 | 476 | | |
| 1.10 | 100 | 1.80 | 281 | 2.50 | 512 | | |
| 1.20 | 122 | 1.90 | 311 | 2.60 | 549 | | |

NOTE.—The above table is based on fifteen discharge measurements made during 1904–1905. It is well defined between gage heights 0.7 foot and 1.3 feet. Beyond these limits the table is uncertain.

RATING TABLE FOR DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C., FOR 1903 AND 1907

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0.70 | 32 | 1.40 | 176 | 2.10 | 520 | 2.80 | 1,075 |
| .80 | 44 | 1.50 | 210 | 2.20 | 590 | 2.90 | 1,170 |
| .90 | 60 | 1.60 | 250 | 2.30 | 660 | 3.00 | 1,265 |
| 1.00 | 79 | 1.70 | 295 | 2.40 | 735 | 3.20 | 1,460 |
| 1.10 | 100 | 1.80 | 345 | 2.50 | 815 | 3.40 | 1,660 |
| 1.20 | 122 | 1.90 | 400 | 2.60 | 895 | | |
| 1.30 | 147 | 2.00 | 460 | 2.70 | 985 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based on discharge measurements made during 1904–1906. It is well defined between gage heights 0.7 foot and 1.3 feet. Above gage height 3.1 feet the rating curve is a tangent, the difference being 100 per tenth.

ESTIMATED MONTHLY DISCHARGE OF DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C.

[Drainage area, 41 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | | Rainfall. |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. | Inches.* |
| 1904. | | | | | | |
| June | 111 | 52 | 73.0 | 1.78 | 1.99 | 4.51 |
| July | 90 | 44 | 55.4 | 1.35 | 1.56 | 2.54 |
| August | 238 | 60 | 113.0 | 2.76 | 3.18 | 5.51 |
| September | 100 | 44 | 67.3 | 1.64 | 1.83 | 1.38 |
| October | 44 | 38 | 39.7 | .968 | 1.12 | ----- |
| November | 122 | 38 | 47.0 | 1.15 | 1.28 | 2.11 |
| December | 146 | 38 | 59.8 | 1.46 | 1.68 | 4.04 |
| 1905. | | | | | | |
| January | 549 | 60 | 104.0 | 2.54 | 2.93 | 5.49 |
| February | 252 | 60 | 135.0 | 3.29 | 3.43 | 6.73 |
| March | 210 | 90 | 119.0 | 2.90 | 3.34 | 2.95 |
| April | 171 | 79 | 95.7 | 2.33 | 2.60 | 4.30 |
| May | 197 | 90 | 126.0 | 3.07 | 3.54 | 10.19 |
| June | 158 | 60 | 94.0 | 2.29 | 2.56 | 3.89 |
| July | 686 | 90 | 186.0 | 4.54 | 5.23 | 8.94 |
| August | 390 | 90 | 147.0 | 3.59 | 4.14 | 6.81 |
| September | 100 | 44 | 66.5 | 1.62 | 1.81 | 2.40 |
| October | 146 | 44 | 50.8 | 1.24 | 1.43 | 3.72 |
| November | 52 | 38 | 41.3 | 1.01 | 1.13 | .18 |
| December | 281 | 38 | 114.0 | 2.78 | 3.20 | 9.71 |
| The year | 686 | 38 | 107.7 | 2.60 | 35.34 | 65.31 |

*At Brevard.

MONTHLY DISCHARGE OF DAVIDSONS RIVER NEAR DAVIDSONS RIVER, N. C.

[Drainage area, 41 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1907. | | | | | |
| January | 210 | 70 | 101.0 | 2.46 | 2.84 |
| February | 134 | 60 | 82.8 | 2.02 | 2.10 |
| March | 210 | 60 | 85.5 | 2.09 | 2.41 |
| April | 250 | 60 | 89.9 | 2.19 | 2.44 |
| May | 193 | 70 | 108.0 | 2.63 | 3.03 |
| June | 400 | 52 | 88.9 | 2.17 | 2.42 |
| July | 147 | 44 | 60.4 | 1.47 | 1.70 |
| August | 134 | 38 | 51.1 | 1.25 | 1.44 |
| September | 985 | 32 | 82.7 | 2.02 | 2.25 |
| October | 70 | 38 | 44.1 | 1.08 | 1.24 |
| November | 295 | 38 | 84.7 | 2.07 | 2.31 |
| December | 590 | 60 | 166.0 | 4.05 | 4.67 |
| The year | 985 | 32 | 87.1 | 2.12 | 28.85 |

NOTE.—November 11–16 discharge interpolated.

### AVERY CREEK AT DAVIDSONS RIVER, N. C.

This station was established as a bench-mark station May 19, 1904. It is located about one-fourth mile above the junction of Avery Creek with Davidsons River, and a less distance from the regular gaging station on the latter stream. Discharge measurements are made from the foot log just above the wagon bridge, the section being smoother than that under bridge.

DISCHARGE MEASUREMENTS OF AVERY CREEK AT DAVIDSONS RIVER, N. C., IN 1904.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage (Height Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| May 19 | B. S. Drane | 18 | 16.0 | 0.91 | 1.79 | 14.0 |
| July 19 | ----do | 18 | 13.0 | .64 | 1.63 | 8.0 |
| Aug. 17 | ----do | 18 | 14.5 | 1.00 | 1.77 | 14.5 |
| Oct. 4 | ----do | 18 | 12.5 | .55 | 1.62 | 6.8 |
| Dec. 8 | ----do | 18 | 12.0 | .52 | 1.66 | 6.3 |

### WATAUGA RIVER NEAR ELIZABETHTON, TENN.

This station was established May 11, 1903. It is located on the Virginia and Southwestern Railway bridge at Siam, about 4 miles from Elizabethton, Tenn.

The channel is straight for 1,000 feet above and below the station. The right bank is high and will overflow only at flood stages. All water will, however, pass under the bridge and the trestle approach. The left bank is a perpendicular masonry abutment and will not overflow. The section underneath the bridge is smooth and consists of sand, silt, and some small rocks, and does not appear to be shifting. At ordinary stages the channel is divided into three parts by the bridge piers. At flood stages there is an additional flood channel on the right bank.

Discharge measurements are made from the lower side of the bridge. The bridge crosses the river at an angle of about 14° with the normal to the direction of the current.

A standard chain gage is fastened on the downstream side of the middle span on the inside of the guard-rail, 140 feet from the left abutment; length of chain, 22.66 feet. The gage is read once each day by J. B. Nave. Bench marks were established as follows: (1) A standard copper bolt set in the cap of the abutment on the left bank, upstream side of the bridge; elevation, 21.11 feet. (2) The upper edge of the plate connecting the lower bracing system with the lower chord and floor beam opposite the middle of the gage box on the downstream side of the bridge; this floor beam is the fourth from the left end of the middle span; elevation, 19.60 feet. Elevations refer to the datum of the gage.

Discharge Measurements of Watauga River near Elizabethton, Tenn.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1903. | | | | | | |
| Feb. 10 | E. W. Myers | 233 | 1,002 | 1.09 | 2.80 | 1,095 |
| May 11 | ----do | 229 | 762 | .87 | 2.00 | 665 |
| July 13 | B. S. Drane | 228 | 662 | .35 | 1.61 | 234 |
| Aug. 15 | ----do | 229 | 653 | .31 | 1.38 | 205 |
| Aug. 15 | M. R. Hall | 205 | 620 | .53 | 1.38 | 328 |
| Sept. 5 | B. S. Drane | 228 | 633 | .36 | 1.25 | 226 |
| Sept. 5* | ----do | 108 | 369 | .67 | 1.25 | 247 |
| Oct. 17 | ----do | 228 | 625 | .33 | 1.20 | 204 |
| Nov. 23 | ----do | 228 | 633 | .34 | 1.26 | 214 |
| 1904. | | | | | | |
| Feb. 25 | B. S. Drane | 229 | 788 | .68 | 2.03 | 537 |
| Feb. 25 | ----do | 229 | 784 | .65 | 2.01 | 507 |
| Mar. 25 | ----do | 234 | 1,183 | 2.12 | 3.70 | 2,507 |
| April 30 | ----do | 230 | 751 | .96 | 2.15 | 720 |
| July 11 | J. M. Giles | 189 | 594 | .68 | 1.60 | 403 |
| Aug. 11 | B. S. Drane | 231 | 760 | .99 | 2.13 | 754 |
| Oct. 19† | ----do | 109 | 311 | .51 | 1.06 | 158 |
| Oct. 19 | ----do | 228 | 517 | .30 | 1.06 | 156 |
| 1905. | | | | | | |
| Feb. 4 | B. S. Drane | 205 | 688 | 0.44 | 1.42 | 296 |
| Feb. 4 | ----do | 205 | 685 | .45 | 1.41 | 297 |
| May 13 | W. E. Hall | 209 | 1,127 | 2.01 | 3.61 | 2,263 |
| June 17 | B. S. Drane | 207 | 644 | .84 | 1.78 | 543 |
| Aug. 23 | W. E. Hall | 204 | 704 | .95 | 1.93 | 670 |
| Dec. 22 | F. A. Murray | 207 | 787 | 1.12 | 2.24 | 879 |
| 1906. | | | | | | |
| Oct. 22 | F. A. Murray | 213 | 1,079 | 1.82 | 3.17 | 1,967 |
| 1907. | | | | | | |
| June 18 | Warren E. Hall | 212 | 874 | 1.35 | 2.48 | 1,181 |
| Aug. 10 | ----do | 209 | 717 | .79 | 1.77 | 570 |

*Boat three-fourths mile above station. †Boat one-half mile above station.

DAILY GAGE HEIGHT, IN FEET, OF WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1903.

| Day. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|
| 1 | ---------- | 1.80 | 1.75 | 1.55 | 1.30 | 1.15 | 1.15 | 1.20 |
| 2 | ---------- | 1.90 | 1.65 | 1.75 | 1.25 | 1.15 | 1.15 | 1.20 |
| 3 | ---------- | 1.80 | 1.65 | 2.20 | 1.25 | 1.10 | 1.20 | 1.20 |
| 4 | ---------- | 1.85 | 1.75 | 1.75 | 1.30 | 1.10 | 1.25 | 1.20 |
| 5 | ---------- | 1.80 | 1.75 | 2.20 | 1.25 | 1.10 | 1.45 | 1.25 |
| 6 | ---------- | 2.45 | 1.75 | 1.90 | 1.20 | 1.10 | 1.45 | 1.20 |
| 7 | ---------- | 2.70 | 1.85 | 1.70 | 1.20 | 1.10 | 1.35 | 1.20 |
| 8 | ---------- | 2.30 | 1.70 | 1.60 | 1.20 | 1.20 | 1.20 | 1.20 |
| 9 | ---------- | 2.05 | 1.55 | 1.50 | 1.20 | 1.70 | 1.20 | 1.20 |
| 10 | ---------- | 2.00 | 1.55 | 1.45 | 1.20 | 1.30 | 1.20 | 1.20 |
| 11 | 1.95 | 1.90 | 1.65 | 1.50 | 1.60 | 1.25 | 1.20 | 1.20 |
| 12 | 1.95 | 2.00 | 1.60 | 1.55 | 1.40 | 1.20 | 1.20 | 1.15 |
| 13 | 1.90 | 1.85 | 3.00 | 1.50 | 1.25 | 1.20 | 1.15 | 1.20 |
| 14 | 2.00 | 1.80 | 3.00 | 1.40 | 1.20 | 1.15 | 1.20 | 1.40 |
| 15 | 1.95 | 1.75 | 2.10 | 1.40 | 1.20 | 1.15 | 1.20 | 1.25 |
| 16 | 1.95 | 1.75 | 1.80 | 1.35 | 1.20 | 1.15 | 1.20 | 1.15 |
| 17 | 1.85 | 1.70 | 1.75 | 1.40 | 1.85 | 1.20 | 1.30 | 1.15 |
| 18 | 1.80 | 1.65 | 1.70 | 1.40 | 1.60 | 1.30 | 2.20 | 1.15 |
| 19 | 1.85 | 1.60 | 1.60 | 1.35 | 1.35 | 1.30 | 1.50 | 1.15 |
| 20 | 1.80 | 1.60 | 1.65 | 1.35 | 1.25 | 1.25 | 1.30 | 1.30 |
| 21 | 1.80 | 1.65 | 1.55 | 1.35 | 1.25 | 1.20 | 1.30 | 2.00 |
| 22 | 1.80 | 1.65 | 1.55 | 1.30 | 1.25 | 1.20 | 1.25 | 1.60 |
| 23 | 1.75 | 1.65 | 1.50 | 1.30 | 1.20 | 1.20 | 1.25 | 1.40 |
| 24 | 1.70 | 1.70 | 1.50 | 1.30 | 1.20 | 1.15 | 1.25 | 1.40 |
| 25 | 1.70 | 1.60 | 1.45 | 1.25 | 1.20 | 1.15 | 1.25 | 1.40 |
| 26 | 1.70 | 1.50 | 1.40 | 1.25 | 1.20 | 1.15 | 1.25 | 2.10 |
| 27 | 1.65 | 1.85 | 1.40 | 1.25 | 1.20 | 1.15 | 1.20 | 1.40 |
| 28 | 1.65 | 1.80 | 1.40 | 1.25 | 1.20 | 1.10 | 1.15 | 1.70 |
| 29 | 1.65 | 2.10 | 1.35 | 1.20 | 1.20 | 1.10 | 1.20 | 1.50 |
| 30 | 1.75 | 1.95 | 1.40 | 1.25 | 1.15 | 1.15 | 1.20 | 1.50 |
| 31 | 1.80 | ---------- | 1.50 | 1.30 | ---------- | 1.20 | ---------- | 1.30 |

DAILY GAGE HEIGHT, IN FEET, OF WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1904 AND 1905.

| 1904. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.30 | 1.50 | 2.35 | 2.05 | 2.10 | 2.50 | 2.00 | 2.20 | 1.40 | 1.15 | 1.05 | 1.25 |
| 2 | 1.30 | 1.70 | 2.60 | 2.00 | 2.00 | 3.00 | 1.80 | 2.20 | 1.70 | 1.15 | 1.05 | 1.30 |
| 3 | 1.25 | 1.60 | 2.30 | 2.00 | 2.70 | 2.30 | 1.70 | 2.10 | 1.60 | 1.15 | 1.10 | 1.35 |
| 4 | 1.25 | 1.50 | 2.30 | 1.90 | 3.70 | 2.20 | 1.60 | 2.00 | 1.50 | 1.15 | 1.20 | 1.35 |
| 5 | 1.20 | 1.40 | 2.15 | 1.80 | 2.70 | 2.10 | 2.70 | 1.60 | 1.60 | 1.15 | 1.50 | 1.60 |
| 6 | 1.15 | 1.60 | 2.00 | 1.75 | 2.40 | 2.00 | 1.90 | 1.75 | 1.50 | 1.10 | 1.50 | 2.30 |
| 7 | 1.20 | 1.50 | 4.45 | 1.80 | 2.20 | 2.20 | 1.70 | 1.75 | 1.45 | 1.10 | 1.30 | 1.80 |
| 8 | 1.20 | 2.70 | 3.90 | 1.70 | 2.90 | 1.95 | 1.60 | 1.70 | 1.40 | 1.10 | 1.20 | 1.50 |
| 9 | 1.20 | 2.20 | 3.10 | 2.20 | 3.50 | 1.80 | 1.50 | 1.65 | 1.30 | 1.10 | 1.15 | 1.40 |
| 10 | 1.20 | 1.90 | 2.60 | 1.90 | 3.00 | 1.80 | 1.70 | 1.50 | 1.30 | 1.10 | 1.10 | 1.50 |
| 11 | 1.30 | 1.80 | 2.80 | 1.85 | 2.80 | 1.80 | 1.60 | 2.15 | 1.25 | 1.10 | 1.10 | 1.60 |
| 12 | 1.50 | 1.65 | 2.30 | 1.90 | 2.50 | 1.80 | 1.60 | 1.90 | 1.25 | 1.10 | 1.10 | 1.60 |
| 13 | 1.50 | 1.65 | 2.30 | 1.80 | 2.40 | 1.70 | 1.55 | 1.70 | 1.30 | 1.10 | 1.40 | 1.50 |
| 14 | 1.40 | 1.65 | 2.20 | 1.70 | 2.20 | 1.70 | 1.50 | 1.65 | 1.30 | 1.10 | 1.45 | 1.50 |
| 15 | 1.20 | 1.70 | 2.15 | 1.70 | 2.25 | 1.60 | 1.45 | 1.70 | 1.35 | 1.10 | 1.50 | 1.40 |
| 16 | 1.35 | 1.70 | 2.10 | 1.80 | 2.10 | 1.50 | 1.40 | 2.60 | 1.30 | 1.10 | 1.50 | 1.40 |
| 17 | 1.80 | 1.60 | 2.00 | 1.85 | 2.00 | 1.60 | 1.40 | 2.00 | 1.25 | 1.10 | 1.45 | 1.40 |
| 18 | 1.70 | 1.60 | 1.95 | 1.75 | 2.60 | 1.60 | 1.40 | 1.70 | 1.20 | 1.10 | 1.45 | 1.35 |
| 19 | 1.70 | 1.60 | 2.00 | 1.70 | 2.40 | 1.50 | 1.40 | 1.60 | 1.20 | 1.10 | 1.40 | 1.35 |
| 20 | 1.40 | 1.70 | 2.00 | 1.70 | 2.10 | 1.50 | 1.30 | 1.60 | 1.20 | 1.05 | 1.35 | 1.30 |
| 21 | 1.50 | 1.70 | 2.00 | 1.65 | 2.00 | 1.60 | 1.30 | 2.00 | 1.20 | 1.05 | 1.35 | 1.30 |
| 22 | 1.70 | 2.45 | 2.35 | 1.65 | 1.90 | 1.70 | 1.40 | 1.80 | 1.15 | 1.05 | 1.40 | 1.30 |
| 23 | 3.00 | 2.40 | 4.00 | 1.60 | 1.80 | 1.60 | 1.50 | 1.60 | 1.15 | 1.05 | 1.40 | 1.30 |
| 24 | 2.10 | 2.20 | 5.20 | 1.60 | 1.75 | 1.50 | 1.55 | 1.50 | 1.15 | 1.05 | 1.40 | 1.30 |
| 25 | 1.90 | 2.05 | 4.00 | 1.55 | 1.90 | 1.45 | 1.85 | 1.50 | 1.15 | 1.05 | 1.35 | 1.50 |
| 26 | 1.90 | 2.00 | 3.10 | 1.65 | 1.35 | 1.45 | 1.80 | 1.45 | 1.15 | 1.05 | 1.35 | 1.60 |
| 27 | 1.50 | 2.60 | 2.85 | 1.90 | 1.30 | 1.50 | 1.50 | 1.45 | 1.15 | 1.05 | 1.30 | 1.65 |
| 28 | 1.50 | 2.75 | 2.60 | 2.30 | 1.20 | 1.70 | 1.60 | 1.45 | 1.15 | 1.05 | 1.30 | 1.70 |
| 29 | 1.55 | 2.40 | 2.40 | 2.30 | 1.20 | 2.80 | 1.50 | 1.40 | 1.15 | 1.05 | 1.30 | 1.65 |
| 30 | 1.40 | ..... | 2.20 | 2.20 | 1.20 | 2.20 | 1.50 | 1.40 | 1.15 | 1.05 | 1.30 | 1.60 |
| 31 | 1.40 | ..... | 2.10 | ..... | 2.30 | ..... | 1.60 | 1.40 | ..... | 1.05 | ..... | 1.60 |
| 1905. | | | | | | | | | | | | |
| 1 | 1.60 | 1.50 | 2.40 | 1.70 | 1.80 | 1.80 | 1.65 | 3.00 | 1.70 | 1.30 | 1.30 | 1.20 |
| 2 | 1.60 | 1.45 | 2.40 | 1.60 | 1.80 | 1.80 | 1.65 | 2.50 | 1.60 | 1.50 | 1.30 | 1.30 |
| 3 | 1.70 | 1.40 | 2.30 | 1.60 | 1.90 | 1.70 | 1.65 | 2.40 | 1.70 | 1.40 | 1.30 | 4.30 |
| 4 | 1.70 | 1.30 | 2.30 | 1.70 | 1.90 | 1.70 | 1.65 | 2.40 | 1.75 | 1.40 | 1.30 | 2.60 |
| 5 | 1.65 | 1.40 | 2.30 | 1.95 | 2.20 | 1.65 | 2.10 | 2.60 | 1.80 | 1.30 | 1.30 | 2.00 |
| 6 | 1.65 | 1.50 | 2.20 | 2.70 | 2.60 | 1.60 | 2.20 | 2.70 | 1.80 | 1.30 | 1.30 | 1.60 |
| 7 | 1.70 | 1.80 | 2.20 | 2.50 | 3.50 | 1.60 | 2.00 | 3.00 | 1.80 | 1.30 | 1.30 | 1.60 |
| 8 | 1.80 | 1.80 | 2.30 | 2.30 | 3.10 | 1.50 | 1.90 | 3.90 | 1.70 | 1.30 | 1.30 | 1.60 |
| 9 | 1.80 | 1.90 | 2.70 | 2.30 | 2.90 | 1.50 | 1.80 | 4.00 | 1.60 | 1.30 | 1.30 | 1.65 |
| 10 | 1.70 | 2.00 | 3.10 | 2.30 | 2.80 | 1.50 | 1.60 | 4.50 | 1.55 | 1.30 | 1.30 | 2.90 |
| 11 | 1.75 | 3.80 | 3.10 | 2.30 | 2.60 | 1.50 | 1.70 | 4.50 | 1.50 | 1.40 | 1.30 | 2.30 |
| 12 | 3.60 | 2.80 | 3.00 | 3.00 | 2.90 | 1.60 | 8.40 | 4.70 | 1.70 | 1.50 | 1.20 | 2.20 |
| 13 | 3.70 | 3.70 | 2.70 | 3.00 | 3.50 | 1.60 | 6.50 | 4.40 | 1.60 | 1.40 | 1.20 | 2.00 |
| 14 | 3.00 | 2.80 | 2.20 | 2.80 | 5.60 | 1.55 | 4.80 | 3.90 | 1.60 | 1.40 | 1.20 | 1.90 |
| 15 | 2.50 | 2.70 | 2.20 | 2.30 | 4.80 | 1.50 | 2.90 | 3.20 | 1.55 | 1.35 | 1.20 | 1.80 |
| 16 | 2.30 | 2.50 | 2.10 | 2.20 | 5.40 | 1.50 | 2.60 | 3.00 | 1.55 | 1.35 | 1.20 | 1.80 |
| 17 | 2.20 | 2.20 | 2.00 | 2.00 | 4.60 | 1.50 | 2.60 | 2.60 | 1.50 | 1.30 | 1.20 | 1.80 |
| 18 | 2.00 | 1.80 | 2.00 | 2.00 | 3.50 | 1.60 | 2.50 | 2.50 | 1.50 | 1.30 | 1.20 | 1.90 |
| 19 | 1.90 | 1.80 | 1.95 | 1.95 | 3.00 | 2.60 | 2.50 | 2.40 | 1.45 | 1.40 | 1.20 | 2.00 |
| 20 | 1.90 | 2.00 | 1.90 | 1.90 | 2.80 | 2.50 | 2.40 | 2.30 | 1.40 | 1.40 | 1.20 | 2.20 |
| 21 | 1.90 | 4.00 | 1.90 | 1.80 | 2.70 | 1.90 | 2.40 | 2.20 | 1.70 | 1.40 | 1.20 | 3.10 |
| 22 | 1.90 | 3.90 | 1.85 | 1.90 | 2.70 | 1.85 | 2.30 | 2.20 | 1.60 | 1.40 | 1.20 | 2.30 |
| 23 | 1.85 | 3.60 | 1.80 | 1.90 | 2.90 | 1.80 | 2.20 | 2.00 | 1.50 | 1.35 | 1.20 | 2.20 |
| 24 | 1.85 | 3.20 | 1.70 | 1.85 | 2.30 | 1.80 | 2.10 | 2.00 | 1.50 | 1.35 | 1.20 | 2.20 |
| 25 | 1.80 | 3.00 | 1.90 | 1.80 | 2.20 | 1.80 | 2.00 | 2.20 | 1.40 | 1.35 | 1.20 | 2.00 |
| 26 | 1.80 | 2.70 | 1.85 | 1.80 | 2.00 | 1.75 | 1.80 | 2.50 | 1.40 | 1.40 | 1.20 | 1.95 |
| 27 | 1.75 | 2.60 | 1.70 | 1.70 | 1.90 | 1.70 | 1.60 | 2.40 | 1.35 | 1.40 | 1.20 | 1.90 |
| 28 | 1.75 | 2.50 | 1.60 | 1.70 | 1.90 | 1.70 | 1.80 | 2.30 | 1.30 | 1.40 | 1.20 | 1.85 |
| 29 | 1.75 | ..... | 1.60 | 1.90 | 1.90 | 1.70 | 2.50 | 2.00 | 1.30 | 1.40 | 1.20 | 1.80 |
| 30 | 1.75 | ..... | 1.80 | 1.90 | 1.85 | 1.70 | 4.50 | 1.85 | 1.30 | 1.35 | 1.20 | 1.80 |
| 31 | 1.50 | ..... | 1.70 | ..... | 1.80 | ..... | 3.80 | 1.70 | ..... | 1.35 | ..... | 1.70 |

DAILY GAGE HEIGHT, IN FEET, OF WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1906 AND 1907.

| 1906. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Day) | | | | | | | | | | | | |
| 1 | 1.65 | 2.60 | 1.85 | 2.80 | 1.70 | 1.50 | 1.70 | 2.40 | 4.10 | 4.20 | 1.80 | 1.70 |
| 2 | 1.60 | 2.50 | 1.80 | 2.70 | 1.70 | 1.50 | 1.65 | 2.60 | 3.00 | 4.20 | 1.75 | 1.70 |
| 3 | 1.60 | 2.30 | 1.80 | 2.60 | 1.70 | 1.50 | 1.60 | 2.50 | 2.70 | 4.50 | 1.70 | 1.80 |
| 4 | 3.60 | 2.20 | 2.60 | 2.10 | 2.00 | 1.50 | 1.60 | 2.40 | 3.00 | 4.30 | 1.70 | 1.80 |
| 5 | 2.80 | 2.10 | 2.60 | 2.00 | 3.00 | 1.45 | 1.55 | 2.35 | 4.00 | 3.20 | 1.70 | 1.75 |
| 6 | 2.60 | 2.00 | 2.50 | 2.20 | 3.50 | 1.45 | 1.55 | 2.30 | 3.90 | 2.90 | 1.70 | 1.80 |
| 7 | 2.40 | 2.00 | 2.40 | 2.20 | 3.40 | 1.40 | 1.50 | 2.00 | 3.70 | 2.70 | 1.65 | 1.80 |
| 8 | 2.30 | 2.00 | 2.80 | 2.00 | 3.00 | 1.45 | 1.50 | 1.80 | 3.50 | 2.40 | 1.65 | 1.60 |
| 9 | 2.00 | 2.00 | 2.60 | 2.00 | 2.90 | 1.45 | 2.20 | 1.70 | 3.40 | 2.20 | 1.60 | 1.60 |
| 10 | 1.70 | 2.00 | 2.50 | 1.90 | 2.70 | 1.40 | 1.70 | 1.65 | 3.20 | 2.10 | 1.60 | 1.60 |
| 11 | 1.70 | 1.95 | 1.90 | 1.90 | 2.50 | 1.40 | 1.50 | 1.60 | 3.00 | 2.00 | 1.75 | 1.60 |
| 12 | 1.80 | 1.95 | 1.70 | 1.85 | 2.00 | 3.00 | 1.50 | 1.60 | 2.80 | 1.90 | 2.00 | 1.60 |
| 13 | 2.00 | 1.90 | 1.70 | 1.80 | 1.90 | 3.50 | 1.45 | 1.80 | 2.40 | 1.90 | 2.00 | 1.60 |
| 14 | 2.90 | 1.90 | 1.70 | 1.80 | 1.85 | 3.00 | 1.40 | 2.00 | 2.20 | 1.90 | 1.90 | 1.60 |
| 15 | 2.60 | 2.10 | 2.60 | 5.00 | 1.80 | 2.80 | 3.00 | 2.30 | 1.90 | 1.90 | 1.75 | 1.60 |
| 16 | 2.60 | 2.00 | 3.00 | 3.60 | 1.80 | 2.70 | 2.60 | 2.60 | 1.85 | 1.80 | 1.65 | 1.60 |
| 17 | 2.50 | 1.90 | 2.40 | 3.40 | 1.70 | 2.70 | 2.40 | 4.20 | 1.80 | 1.80 | 1.60 | 1.65 |
| 18 | 2.40 | 1.80 | 2.40 | 3.00 | 1.65 | 2.60 | 2.00 | 2.70 | 1.70 | 1.90 | 2.00 | 2.10 |
| 19 | 2.20 | 1.80 | 2.30 | 2.50 | 1.60 | 2.40 | 1.80 | 2.60 | 5.00 | 6.00 | 7.00 | 2.00 |
| 20 | 2.20 | 1.90 | 2.30 | 2.40 | 1.60 | 2.30 | 2.00 | 2.30 | 4.20 | 5.60 | 4.60 | 2.00 |
| 21 | 2.10 | 2.40 | 2.20 | 2.20 | 1.55 | 2.00 | 2.30 | 2.30 | 2.70 | 4.00 | 3.40 | 1.90 |
| 22 | 7.30 | 2.40 | 2.30 | 2.15 | 1.50 | 1.70 | 2.20 | 2.30 | 3.10 | 3.15 | 2.90 | 1.85 |
| 23 | 7.40 | 2.10 | 2.40 | 2.10 | 1.50 | 1.65 | 2.00 | 2.30 | 3.00 | 2.70 | 2.60 | 1.80 |
| 24 | 4.80 | 2.10 | 2.40 | 2.10 | 1.50 | 2.40 | 1.90 | 2.20 | 2.80 | 2.60 | 2.50 | 1.80 |
| 25 | 3.60 | 2.00 | 2.35 | 2.00 | 1.45 | 2.55 | 1.85 | 2.20 | 2.50 | 2.40 | 2.40 | 1.80 |
| 26 | 3.10 | 2.00 | 2.20 | 1.90 | 1.40 | 2.20 | 1.80 | 2.40 | 2.30 | 2.30 | 2.30 | 1.85 |
| 27 | 2.90 | 1.90 | 2.10 | 1.80 | 1.80 | 2.00 | 2.90 | 2.60 | 2.15 | 2.20 | 2.15 | 1.90 |
| 28 | 2.90 | 1.90 | 2.00 | 1.80 | 1.90 | 1.90 | 2.30 | 4.50 | 2.15 | 2.00 | 2.00 | 3.20 |
| 29 | 2.80 | ..... | 2.00 | 1.80 | 1.70 | 1.80 | 2.20 | 6.80 | 4.70 | 1.90 | 1.90 | 4.40 |
| 30 | 2.80 | ..... | 3.40 | 1.75 | 1.60 | 1.70 | 2.10 | 5.40 | 4.30 | 1.85 | 1.70 | 3.90 |
| 31 | 2.70 | ..... | 2.90 | ..... | 1.55 | ..... | 2.40 | 5.30 | ..... | 1.80 | ..... | 3.60 |
| 1907. | | | | | | | | | | | | |
| 1 | 3.40 | 1.60 | 2.60 | 1.65 | 1.90 | 1.80 | (*) | 1.70 | 1.50 | 1.90 | 1.45 | (*) |
| 2 | 3.00 | 1.55 | 2.90 | 1.60 | 1.90 | 5.50 | 1.80 | 1.65 | 1.70 | 1.80 | (*) | 1.85 |
| 3 | 2.65 | 1.55 | 2.70 | 1.60 | 1.90 | 4.90 | 1.75 | 1.60 | 1.75 | 1.60 | 1.40 | 1.70 |
| 4 | 2.40 | 1.55 | 2.65 | 1.70 | 2.00 | 3.70 | (*) | 1.60 | 1.70 | 1.70 | 1.40 | 1.60 |
| 5 | 2.25 | 1.60 | 2.60 | 1.75 | 2.10 | 3.10 | 1.65 | 1.60 | (*) | 2.50 | 1.40 | 1.50 |
| 6 | 2.20 | 1.60 | 2.55 | 1.80 | 2.10 | 2.70 | 1.60 | 1.60 | 1.60 | 2.30 | 1.35 | 1.55 |
| 7 | 2.20 | 1.55 | 2.50 | 1.90 | 2.00 | 2.60 | 1.60 | 1.65 | 1.55 | (*) | 1.30 | 1.50 |
| 8 | 2.15 | 1.55 | 2.40 | 1.95 | 1.95 | 3.50 | 1.55 | 1.70 | 1.65 | 1.70 | 1.30 | (*) |
| 9 | 2.10 | 1.55 | 2.60 | 2.00 | 1.90 | 3.40 | 1.50 | 1.75 | 1.70 | 1.65 | 1.35 | 1.50 |
| 10 | 2.00 | 1.50 | 2.80 | 2.30 | 1.80 | 3.30 | 1.50 | 1.75 | 1.70 | 1.65 | 1.80 | 1.50 |
| 11 | 1.95 | (*) | 3.10 | 2.20 | 1.75 | 3.10 | 1.60 | 1.70 | 1.65 | 1.60 | 2.30 | 1.45 |
| 12 | 1.85 | 1.50 | 2.90 | 2.20 | 1.75 | 2.90 | 1.80 | 1.60 | 2.40 | 1.55 | 2.00 | 1.50 |
| 13 | 1.80 | 1.50 | 2.60 | 2.15 | 1.70 | 2.70 | 2.30 | 1.50 | 1.95 | 1.50 | 1.90 | 1.60 |
| 14 | 1.70 | 1.50 | 2.50 | 2.10 | 1.65 | 5.00 | 3.20 | 1.45 | 1.70 | 1.50 | 1.80 | 2.30 |
| 15 | 1.70 | (*) | 2.45 | 2.10 | 1.60 | 3.30 | 2.30 | 1.40 | (*) | 1.50 | 1.70 | 2.60 |
| 16 | 1.65 | (*) | 2.40 | 2.10 | 1.55 | (*) | 2.30 | 1.30 | 1.60 | 1.45 | 1.65 | 2.60 |
| 17 | 1.60 | 1.50 | 2.30 | 2.20 | 1.50 | 2.50 | 2.30 | 1.80 | 1.55 | 1.45 | 1.65 | 2.50 |
| 18 | 1.70 | 1.50 | 2.25 | 2.20 | 1.45 | 2.50 | 2.20 | 1.90 | 1.50 | 1.45 | 1.65 | 2.35 |
| 19 | 1.80 | 1.50 | 2.20 | 2.30 | 1.50 | 2.45 | 2.10 | 1.85 | 1.50 | 1.40 | 1.60 | 2.10 |
| 20 | 1.75 | 1.50 | 2.00 | 2.25 | 1.60 | 2.40 | 2.10 | 1.75 | (*) | 1.40 | 1.60 | 2.00 |
| 21 | 1.75 | 1.50 | 1.95 | 2.20 | 1.55 | 2.40 | (*) | 1.65 | 1.70 | 1.40 | 1.60 | 1.80 |
| 22 | 1.70 | 1.60 | 1.90 | 2.30 | 1.55 | 2.35 | 2.05 | 1.60 | 1.80 | 1.35 | (*) | 1.90 |
| 23 | 1.70 | 1.75 | 1.85 | 3.00 | 1.60 | (*) | 2.00 | 1.75 | 5.20 | 1.35 | 2.00 | 4.50 |
| 24 | 1.65 | 2.20 | 1.80 | 2.90 | 1.65 | 2.20 | 1.90 | 1.80 | 4.80 | 1.30 | 2.40 | 4.40 |
| 25 | 1.60 | 2.30 | 1.80 | 2.50 | 1.60 | 1.90 | 1.85 | 1.75 | 3.80 | 1.30 | 2.50 | 4.20 |
| 26 | 1.60 | 2.85 | 1.75 | 2.30 | 1.60 | 2.60 | 1.80 | 1.70 | 3.50 | 1.30 | 2.50 | 4.00 |
| 27 | 1.60 | 2.40 | 1.75 | 2.20 | 1.50 | 2.90 | 1.75 | 1.65 | 3.20 | 1.30 | 2.35 | 3.60 |
| 28 | 1.60 | 2.60 | 1.70 | 2.15 | 1.50 | 2.30 | 1.70 | 1.60 | 2.90 | 1.30 | 2.25 | 3.00 |
| 29 | 1.55 | ..... | 1.70 | 2.10 | 1.40 | 2.10 | 2.00 | 1.60 | 2.80 | (*) | 2.10 | 2.70 |
| 30 | 1.50 | ..... | 1.65 | 2.00 | 1.40 | ..... | 1.90 | 1.55 | 2.40 | 1.50 | 2.00 | 3.60 |
| 31 | 1.50 | ..... | 1.70 | ..... | 1.50 | ..... | 1.90 | 1.55 | ..... | 1.50 | ..... | 3.50 |

*No reading.

RATING TABLE FOR WATAUGA RIVER NEAR ELIZABETHTON, TENN., FROM MAY 11 TO DECEMBER 31, 1903.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 1.1 | 200 | 1.6 | 430 | 2.1 | 708 | 2.6 | 993 |
| 1.2 | 231 | 1.7 | 485 | 2.2 | 765 | 2.7 | 1,050 |
| 1.3 | 273 | 1.8 | 540 | 2.3 | 822 | 2.8 | 1,107 |
| 1.4 | 323 | 1.9 | 596 | 2.4 | 879 | 2.9 | 1,164 |
| 1.5 | 376 | 2.0 | 652 | 2.5 | 936 | 3.0 | 1,221 |

NOTE.—Lower part of curve is uncertain on account of low velocity of stream.

RATING TABLE FOR WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1904.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.0 | 135 | 2.0 | 650 | 3.0 | 1,530 | 4.0 | 3,025 |
| 1.1 | 170 | 2.1 | 720 | 3.1 | 1,645 | 4.2 | 3,390 |
| 1.2 | 210 | 2.2 | 790 | 3.2 | 1,765 | 4.4 | 3,770 |
| 1.3 | 250 | 2.3 | 865 | 3.3 | 1,895 | 4.6 | 4,160 |
| 1.4 | 295 | 2.4 | 945 | 3.4 | 2,035 | 4.8 | 4,560 |
| 1.5 | 345 | 2.5 | 1,030 | 3.5 | 2,180 | 5.0 | 4,960 |
| 1.6 | 400 | 2.6 | 1,120 | 3.6 | 2,335 | 5.2 | 5,360 |
| 1.7 | 460 | 2.7 | 1,215 | 3.7 | 2,500 | | |
| 1.8 | 520 | 2.8 | 1,315 | 3.8 | 2,670 | | |
| 1.9 | 585 | 2.9 | 1,420 | 3.9 | 2,845 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon twelve discharge measurements made during 1903 and 1904. It is not well defined. The table has been extended above gage height 3.7 feet. This table is very uncertain above gage height 3.0 feet.

RATING TABLE FOR WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1905 AND 1906.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.20 | 205 | 2.40 | 1,010 | 3.60 | 2,330 | 5.60 | 5,200 |
| 1.30 | 250 | 2.50 | 1,100 | 3.70 | 2,460 | 5.80 | 5,520 |
| 1.40 | 300 | 2.60 | 1,190 | 3.80 | 2,590 | 6.00 | 5,840 |
| 1.50 | 355 | 2.70 | 1,285 | 3.90 | 2,720 | 6.20 | 6,180 |
| 1.60 | 410 | 2.80 | 1,385 | 4.00 | 2,850 | 6.40 | 6,520 |
| 1.70 | 470 | 2.90 | 1,490 | 4.20 | 3,110 | 6.60 | 6,860 |
| 1.80 | 535 | 3.00 | 1,600 | 4.40 | 3,390 | 6.80 | 7,200 |
| 1.90 | 605 | 3.10 | 1,710 | 4.60 | 3,670 | 7.00 | 7,540 |
| 2.00 | 680 | 3.20 | 1,825 | 4.80 | 3,970 | 8.00 | 9,340 |
| 2.10 | 755 | 3.30 | 1,945 | 5.00 | 4,270 | 9.00 | 11,240 |
| 2.20 | 835 | 3.40 | 2,070 | 5.20 | 4,570 | | |
| 2.30 | 920 | 3.50 | 2,200 | 5.40 | 4,880 | | |

NOTE.—The above table is based on discharge measurements made during 1904–1906. It is well defined between gage heights 1.4 feet and 3.7 feet.

RATING TABLE FOR WATAUGA RIVER NEAR ELIZABETHTON, TENN., FOR 1907.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.30 | 290 | 2.40 | 1,090 | 3.50 | 2,230 | 4.60 | 3,670 |
| 1.40 | 345 | 2.50 | 1,180 | 3.60 | 2,350 | 4.70 | 3,820 |
| 1.50 | 400 | 2.60 | 1,275 | 3.70 | 2,470 | 4.80 | 3,970 |
| 1.60 | 460 | 2.70 | 1,370 | 3.80 | 2,595 | 4.90 | 4,120 |
| 1.70 | 525 | 2.80 | 1,470 | 3.90 | 2,720 | 5.00 | 4,270 |
| 1.80 | 595 | 2.90 | 1,570 | 4.00 | 2,850 | 5.20 | 4,570 |
| 1.90 | 670 | 3.00 | 1,675 | 4.10 | 2,980 | 5.40 | 4,880 |
| 2.00 | 750 | 3.10 | 1,780 | 4.20 | 3,110 | 5.60 | 5,200 |
| 2.10 | 830 | 3.20 | 1,890 | 4.30 | 3,250 | | |
| 2.20 | 915 | 3.30 | 2,000 | 4.40 | 3,390 | | |
| 2.30 | 1,000 | 3.40 | 2,115 | 4.50 | 3,530 | | |

NOTE.—The above table is applicable only for open-channel conditions. It is based upon discharge measurements made during 1904–1907.

ESTIMATED MONTHLY DISCHARGE OF WATAUGA RIVER NEAR ELIZABETHTON, TENN.

[Drainage area, 408 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1903. | | | | | |
| May 11-31 | 652 | 457 | 544 | 1.33 | 1.04 |
| June | 1,050 | 376 | 573 | 1.40 | 1.57 |
| July | 1,221 | 298 | 489 | 1.20 | 1.38 |
| August | 765 | 231 | 368 | .90 | 1.04 |
| September | 568 | 216 | 268 | .66 | .73 |
| October | 485 | 200 | 233 | .57 | .66 |
| November | 765 | 216 | 270 | .66 | .74 |
| December | 708 | 216 | 300 | .74 | .85 |
| 1904. | | | | | |
| January | 1,550 | 190 | 372 | 0.912 | 1.05 |
| February | 1,265 | 295 | 601 | 1.47 | 1.59 |
| March | 5,360 | 618 | 1,357 | 3.33 | 3.84 |
| April | 865 | 372 | 552 | 1.35 | 1.51 |
| May | 2,500 | 210 | 873 | 2.14 | 2.47 |
| June | 1,530 | 320 | 579 | 1.42 | 1.58 |
| July | 1,215 | 250 | 417 | 1.02 | 1.18 |
| August | 1,120 | 295 | 496 | 1.22 | 1.41 |
| September | 460 | 190 | 254 | .623 | .695 |
| October | 190 | 152 | 166 | .407 | .469 |
| November | 345 | 152 | 258 | .632 | .705 |
| December | 865 | 230 | 349 | .855 | .986 |
| The year | 5,360 | 152 | 523 | 1.28 | 17.48 |
| 1905. | | | | | |
| January | 2,460 | 355 | 712 | 1.75 | 2.02 |
| February | 2,850 | 250 | 1,140 | 2.79 | 2.90 |
| March | 1,710 | 410 | 827 | 2.03 | 2.34 |
| April | 1,600 | 410 | 765 | 1.88 | 2.10 |
| May | 5,200 | 535 | 1,558 | 3.82 | 4.40 |
| June | 1,190 | 355 | 494 | 1.21 | 1.35 |
| July | 10,100 | 410 | 1,509 | 3.70 | 4.27 |
| August | 3,820 | 470 | 1,536 | 3.76 | 4.34 |
| September | 535 | 250 | 389 | .953 | 1.06 |
| October | 355 | 250 | 283 | .694 | .800 |
| November | 250 | 205 | 222 | .544 | .607 |
| December | 3,250 | 205 | 769 | 1.88 | 2.07 |
| The year | 10,100 | 205 | 850 | 2.08 | 28.29 |
| 1906. | | | | | |
| January | 8,260 | 410 | 1,640 | 4.02 | 4.64 |
| February | 1,190 | 535 | 732 | 1.79 | 1.86 |
| March | 2,070 | 470 | 959 | 2.35 | 2.71 |
| April | 4,270 | 502 | 1,000 | 2.45 | 2.73 |
| May | 2,200 | 300 | 728 | 1.78 | 2.05 |
| June | 2,200 | 300 | 765 | 1.87 | 2.09 |
| July | 1,600 | 300 | 668 | 1.64 | 1.89 |
| August | 7,200 | 410 | 1,300 | 3.19 | 3.68 |
| September | 4,270 | 470 | 1,750 | 4.29 | 4.79 |
| October | 5,840 | 535 | 1,560 | 3.82 | 4.40 |
| November | 7,540 | 410 | 1,020 | 2.50 | 2.79 |
| December | 3,390 | 410 | 776 | 1.90 | 2.19 |
| The year | 8,260 | 300 | 1,070 | 2.63 | 35.82 |

NOTE.—As values for 1906 are based on the only measurement made during the year, they should be rated as fair, but it is probable that good would be a better rating.

ESTIMATED MONTHLY DISCHARGE OF WATAUGA RIVER NEAR ELIZABETHTON, TENN.—*Continued.*

[Drainage area, 408 square miles.]

| Month. | Discharge in Second-feet. | | | Run-off. | |
|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | Second-feet per Square Mile. | Depth in Inches. |
| 1907. | | | | | |
| January | 2,120 | 400 | 717 | 1.76 | 2.03 |
| February | 1,520 | 400 | 557 | 1.37 | 1.43 |
| March | 1,780 | 492 | 1,000 | 2.45 | 2.82 |
| April | 1,680 | 460 | 864 | 2.12 | 2.36 |
| May | 830 | 345 | 530 | 1.30 | 1.50 |
| June | 5,040 | 595 | 1,680 | 4.12 | 4.60 |
| July | 1,890 | 400 | 708 | 1.74 | 2.01 |
| August | 595 | 290 | 494 | 1.21 | 1.40 |
| September | 4,570 | 400 | 1,030 | 2.52 | 2.81 |
| October | 1,180 | 290 | 457 | 1.12 | 1.29 |
| November | 1,180 | 290 | 612 | 1.50 | 1.67 |
| December | 3,530 | 372 | 1,210 | 2.97 | 3.42 |
| The year | 5,040 | 290 | 822 | 2.02 | 27.34 |

## WATAUGA RIVER AT BUTLER, TENN.

This station was established on August 14, 1900.

The gage rod was a vertical scale graduated to feet and tenths and spiked to a tree on the right bank of the stream about 100 yards below the highway bridge, from which the gagings were made.

The section at this station was favorable for making accurate measurements of discharge, as the bed of the stream was of smooth, hard sand, the course of the river straight for some distance above and below the station, and the current velocities sufficient and well distributed in the section, while the banks were high and not subject to overflow except during extraordinary freshets.

This station was maintained up to the end of 1901, though the bridge from which gagings were made was swept away in the great flood of May, 1901, and no gagings were possible after that date.

DISCHARGE MEASUREMENTS OF WATAUGA RIVER AT BUTLER, TENN.

| Date. | Hydrographer. | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|
| 1900. | | | |
| July 30 | E. W. Myers | 1.37 | 434 |
| Aug. 7 | L. V. Branch | .90 | 214 |
| Aug. 17 | ----do | .84 | 166 |
| Oct. 6 | E. W. Myers | 1.12 | 238 |
| Nov. 7 | L. V. Branch | 2.20 | 591 |
| Dec. 28 | E. W. Myers | 1.40 | 311 |
| 1901. | | | |
| Jan. 17 | E. W. Myers | 2.10 | 574 |
| April 12 | ----do | 2.55 | 849 |

DAILY GAGE HEIGHT, IN FEET, OF WATAUGA RIVER AT BUTLER, TENN., FOR 1900.

| Day. | Aug. | Sept. | Oct. | Nov. | Dec. | Day. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 0.90 | 0.90 | 5.60 | 2.00 | 17 | ------ | 4.50 | 0.70 | 1.50 | 1.50 |
| 2 | ------ | .90 | .90 | 5.00 | 2.40 | 18 | 0.90 | 4.00 | .70 | 1.50 | 1.50 |
| 3 | ------ | .90 | .90 | 2.30 | 2.40 | 19 | .80 | 3.20 | .70 | 1.40 | 1.50 |
| 4 | ------ | .90 | .90 | 2.10 | 5.00 | 20 | .80 | 2.70 | .70 | 1.40 | 1.50 |
| 5 | ------ | .90 | .90 | 2.50 | 4.00 | 21 | 1.10 | 1.10 | .70 | 1.40 | 1.50 |
| 6 | ------ | .90 | .90 | 2.30 | 3.50 | 22 | 1.60 | 1.00 | .70 | 1.40 | 1.50 |
| 7 | ------ | .80 | .90 | 2.00 | 3.00 | 23 | 1.30 | 1.10 | 15.00 | 1.40 | 1.50 |
| 8 | ------ | .80 | .90 | 2.00 | 2.50 | 24 | 1.20 | .90 | 9.00 | 1.40 | 1.50 |
| 9 | ------ | .80 | .90 | 1.90 | 2.10 | 25 | .90 | .90 | 4.50 | 1.40 | 1.50 |
| 10 | ------ | .80 | .90 | 1.90 | 1.90 | 26 | .90 | .90 | 2.50 | 5.40 | 1.50 |
| 11 | ------ | .80 | .90 | 1.90 | 1.50 | 27 | .90 | .90 | 2.00 | 4.00 | 1.50 |
| 12 | ------ | .80 | .80 | 1.80 | 1.50 | 28 | .90 | .90 | 4.50 | 3.00 | 1.50 |
| 13 | ------ | .80 | .80 | 1.60 | 1.50 | 29 | .80 | .90 | 4.00 | 3.00 | 1.50 |
| 14 | 1.30 | 1.70 | .90 | 1.50 | 1.50 | 30 | 1.90 | .90 | 4.00 | 2.40 | 1.50 |
| 15 | .80 | 1.70 | .80 | 1.50 | 1.50 | 31 | 1.40 | ------ | 3.20 | ------ | 1.50 |
| 16 | .70 | 3.10 | .70 | 1.50 | 1.50 | | | | | | |

DAILY GAGE HEIGHT, IN FEET, OF WATAUGA RIVER AT BUTLER, TENN., FOR 1901.

| Day. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.00 | 1.60 | 1.50 | 3.00 | 3.00 | 3.00 | 6.40 | 2.00 | 3.50 | 2.80 | 2.60 | 2.60 |
| 2 | 2.00 | 1.60 | 1.50 | 8.00 | 3.00 | 3.00 | 4.10 | 2.00 | 3.10 | 2.80 | 2.60 | 2.60 |
| 3 | 2.00 | 1.60 | 1.50 | 7.00 | 3.00 | 3.00 | 3.50 | 2.00 | 2.70 | 2.80 | 2.60 | 2.60 |
| 4 | 1.80 | 2.80 | 1.50 | 6.30 | 3.00 | 3.00 | 2.80 | 2.00 | 2.70 | 2.80 | 3.50 | 2.60 |
| 5 | 1.60 | 2.00 | 1.50 | 5.00 | 3.00 | 3.00 | 2.50 | 2.00 | 2.70 | 2.80 | 3.10 | 2.60 |
| 6 | 1.50 | 2.00 | 1.50 | 4.50 | 3.00 | 3.00 | 2.50 | 8.00 | 2.70 | 2.80 | 3.00 | 2.60 |
| 7 | 1.50 | 1.80 | 1.70 | 3.40 | 3.60 | 3.00 | 2.50 | 5.10 | 2.70 | 2.70 | 2.80 | 2.60 |
| 8 | 1.50 | 1.60 | 2.00 | 3.00 | 4.60 | 11.00 | 2.30 | 3.40 | 2.70 | 2.70 | 2.80 | 2.60 |
| 9 | 1.50 | 3.50 | 2.00 | 2.50 | 3.50 | 6.30 | 2.00 | 2.80 | 2.70 | 2.60 | 2.80 | 2.60 |
| 10 | 1.90 | 3.00 | 2.00 | 2.50 | 3.20 | 4.50 | 2.00 | 2.50 | 2.70 | 2.60 | 2.80 | 4.70 |
| 11 | 2.00 | 2.80 | 4.00 | 2.50 | ------ | 4.50 | 2.00 | 3.50 | 2.70 | 2.60 | 2.80 | 3.60 |
| 12 | 7.00 | 2.80 | 3.00 | 2.50 | 2.80 | 3.60 | 2.00 | 7.60 | 3.00 | 2.60 | 2.80 | 3.10 |
| 13 | 5.00 | 2.40 | 2.00 | 2.50 | 2.80 | 3.40 | 2.00 | 5.30 | 3.00 | 4.10 | 2.80 | 3.00 |
| 14 | 4.30 | 2.00 | 2.00 | 2.50 | 2.60 | 3.00 | 2.00 | 4.50 | 2.70 | 4.00 | 2.80 | 9.50 |
| 15 | 3.60 | 2.00 | 2.00 | 2.50 | 2.60 | 3.00 | 2.00 | 4.70 | 2.70 | 3.60 | 2.80 | 8.00 |
| 16 | 3.00 | 2.00 | 2.00 | 2.50 | 2.60 | 3.00 | 2.00 | 6.70 | 4.50 | 3.60 | 2.80 | 6.00 |
| 17 | 2.60 | 2.00 | 2.00 | 2.50 | 2.60 | 2.50 | 2.00 | 6.70 | 3.60 | 3.20 | 2.80 | 4.50 |
| 18 | 2.60 | 1.80 | 2.00 | 2.50 | 2.60 | 2.50 | 2.00 | 5.90 | 3.10 | 3.20 | 2.80 | 3.60 |
| 19 | 2.60 | 1.60 | 1.80 | 2.50 | 2.80 | 2.50 | 2.00 | 4.60 | 3.00 | 3.20 | 2.80 | 3.00 |
| 20 | 2.10 | 1.00 | 1.60 | 12.00 | 3.00 | 2.50 | 2.00 | 4.00 | 3.00 | 3.20 | 2.80 | 3.00 |
| 21 | 2.00 | .80 | 1.60 | 5.20 | 16.27 | 2.50 | 2.00 | 6.90 | 3.00 | 3.20 | 2.80 | 3.00 |
| 22 | 1.80 | .80 | 1.60 | 4.50 | 11.00 | 2.50 | 2.00 | 5.80 | 3.00 | 3.20 | 2.80 | 3.00 |
| 23 | 1.60 | .60 | 1.60 | 4.50 | 5.00 | 2.50 | 2.00 | 4.00 | 3.00 | 2.90 | 2.80 | 3.00 |
| 24 | 1.60 | .60 | 1.80 | 4.50 | 4.60 | 2.50 | 2.00 | 3.50 | 3.80 | 2.90 | 2.60 | 6.00 |
| 25 | 1.60 | .80 | 2.00 | 3.70 | 4.50 | 2.50 | 2.00 | 3.50 | 3.50 | 2.90 | 2.60 | 4.00 |
| 26 | 1.60 | 1.00 | 7.00 | 3.70 | 3.60 | 3.20 | 2.00 | 3.50 | 3.00 | 2.90 | 2.60 | 3.00 |
| 27 | 1.60 | 1.50 | 6.00 | 3.70 | 3.40 | 8.70 | 2.00 | 3.50 | 3.00 | 2.60 | 2.60 | 3.00 |
| 28 | 1.60 | 1.50 | 4.80 | 3.00 | 3.40 | 8.90 | 2.00 | 3.50 | 3.00 | 2.60 | 2.60 | 3.00 |
| 29 | 1.60 | ------ | 3.50 | 3.00 | 3.40 | 3.80 | 2.00 | 3.50 | 3.00 | 2.60 | 2.60 | ------ |
| 30 | 1.60 | ------ | 3.00 | 3.00 | 3.40 | 2.60 | 2.00 | 3.50 | 2.80 | 2.60 | 2.60 | ------ |
| 31 | 1.60 | ------ | 3.00 | ------ | 3.00 | ------ | 2.00 | 3.50 | ------ | 2.60 | ------ | ------ |

RATING TABLE FOR WATAUGA RIVER AT BUTLER, TENN., FOR 1900 AND 1901.

| Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|---|
| 0.6 | 120 | 2.3 | 665 | 4.0 | 2,010 | 5.7 | 3,370 |
| .7 | 135 | 2.4 | 735 | 4.1 | 2,090 | 5.8 | 3,450 |
| .8 | 157 | 2.5 | 810 | 4.2 | 2,170 | 5.9 | 3,530 |
| .9 | 180 | 2.6 | 890 | 4.3 | 2,250 | 6.0 | 3,610 |
| 1.0 | 205 | 2.7 | 970 | 4.4 | 2,330 | 6.1 | 3,690 |
| 1.1 | 230 | 2.8 | 1,050 | 4.5 | 2,410 | 6.2 | 3,770 |
| 1.2 | 255 | 2.9 | 1,130 | 4.6 | 2,490 | 6.3 | 3,850 |
| 1.3 | 283 | 3.0 | 1,210 | 4.7 | 2,570 | 6.4 | 3,930 |
| 1.4 | 311 | 3.1 | 1,290 | 4.8 | 2,650 | 6.5 | 4,010 |
| 1.5 | 341 | 3.2 | 1,370 | 4.9 | 2,730 | 6.6 | 4,090 |
| 1.6 | 373 | 3.3 | 1,450 | 5.0 | 2,810 | 6.7 | 4,170 |
| 1.7 | 405 | 3.4 | 1,530 | 5.1 | 2,890 | 6.8 | 4,250 |
| 1.8 | 440 | 3.5 | 1,610 | 5.2 | 2,970 | 6.9 | 4,330 |
| 1.9 | 476 | 3.6 | 1,690 | 5.3 | 3,050 | 7.0 | 4,410 |
| 2.0 | 515 | 3.7 | 1,770 | 5.4 | 3,130 | | |
| 2.1 | 562 | 3.8 | 1,850 | 5.5 | 3,210 | | |
| 2.2 | 610 | 3.9 | 1,930 | 5.6 | 3,290 | | |

ESTIMATED MONTHLY DISCHARGE OF WATAUGA RIVER AT BUTLER, TENN.

[Drainage area, 261 square miles.]

| Month. | Discharge in Second-feet. | | | Total in Acre-feet. | Run-off. | |
|---|---|---|---|---|---|---|
| | Maximum. | Minimum. | Mean. | | Second-feet per Square Mile. | Depth in Inches. |
| 1900. | | | | | | |
| August* | ------- | --- | 228 | 7,688 | 0.874 | 0.25 |
| September | 2,410 | 157 | 432 | 25,705 | 1.655 | 1.85 |
| October | 10,810 | 135 | 1,030 | 63,332 | 3.946 | 4.55 |
| November | 3,290 | 311 | 808 | 48,079 | 3.097 | 3.46 |
| December | 2,810 | 341 | 601 | 36,953 | 2.302 | 2.65 |
| 1901. | | | | | | |
| January | 4,410 | 341 | 794 | 48,820 | 3.042 | 3.52 |
| February | 1,610 | 120 | 512 | 28,435 | 1.962 | 2.04 |
| March | 4,410 | 341 | 900 | 55,339 | 3.448 | 3.97 |
| April | 8,410 | 810 | 1,970 | 117,223 | 7.548 | 8.42 |
| May | 11,850 | 890 | 1,971 | 121,192 | 7.551 | 8.71 |
| June | 7,610 | 810 | 1,821 | 108,357 | 6.977 | 7.78 |
| July | 3,930 | 515 | 762 | 46,853 | 2.920 | 3.37 |
| August | 5,210 | 515 | 2,182 | 134,166 | 8.360 | 9.63 |
| September | 2,410 | 970 | 1,226 | 75,332 | 4.697 | 5.24 |
| October | 2,090 | 890 | 1,176 | 72,309 | 4.505 | 5.20 |
| November | 1,610 | 890 | 969 | 57,659 | 3.712 | 4.14 |
| December† | ------ | --- | 1,762 | 97,801 | 6.751 | 8.93 |
| The year | 11,850 | 120 | 1,337 | 963,486 | 5.123 | 70.95 |

*17 days. †28 days.

### DOE RIVER AT ELIZABETHTON, TENN.

This station was established at the wagon bridge in Elizabethton, on June 15, 1907.

The vertical gage is attached to an elm tree about 1,500 feet above the bridge, on the right bank of the river. It was necessary to place the gage above the bridge to get it away from backwater, caused by a low dam below the bridge.

Discharge measurements are made from the covered wooden bridge.

The stream is confined between the bridge abutments unless it be at very high floods. The current is sluggish, owing to the low dam below. The bed is mostly sand.

The bench mark is a large nail driven in the side toward the river of the elm tree to which the gage is attached; elevation, 8.00 feet. There is also another nail 5.00 feet above datum.

DISCHARGE MEASUREMENTS OF DOE RIVER AT ELIZABETHTON, TENN.

| Date. | Hydrographer. | Width (Feet). | Area of Section (Square Feet). | Mean Velocity (Feet per Second). | Gage Height (Feet). | Discharge (Second-feet). |
|---|---|---|---|---|---|---|
| 1904. | | | | | | |
| May 22 | B. S. Drane | 128 | 253 | 1.21 | 1.55 | 307 |
| July 11 | J. M. Giles | 129 | 166 | .60 | .79 | 99 |
| Oct. 20 | B. S. Drane | 134 | 131 | .37 | .64 | 48 |
| 1907. | | | | | | |
| June 17 | Warren E. Hall | 129 | 285 | 1.41 | 1.50 | 403 |
| Aug. 9 | ----do | 127 | 283 | 1.78 | 1.60 | 504 |
| Sept. 5 | B. M. Hall, Jr. | 125 | 243 | 1.47 | 1.48 | 357 |
| Sept. 5 | ----do | 125 | 242 | 1.38 | 1.43 | 334 |

NOTE.—Gage heights for 1904 measurements not same datum as the 1907 gage.

Daily Gage Height, in Feet, of Doe River at Elizabethton, Tenn., for 1907.

| Day. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|
| 1 | | 0.90 | 0.90 | 0.85 | 1.00 | 0.65 | 0.85 |
| 2 | | 1.15 | .90 | .80 | 1.00 | .70 | .75 |
| 3 | | 1.00 | .80 | .80 | .90 | .75 | .75 |
| 4 | | .90 | .80 | 1.75 | .90 | .75 | .80 |
| 5 | | .90 | .80 | 1.65 | .80 | .70 | .90 |
| 6 | | .90 | .90 | 1.10 | .80 | .60 | 1.00 |
| 7 | | .90 | .90 | 1.00 | .80 | .52 | 1.20 |
| 8 | | .80 | 1.00 | 2.00 | .90 | .60 | 1.25 |
| 9 | | .80 | 1.45 | 1.40 | .85 | .75 | .95 |
| 10 | | .80 | 1.00 | 1.05 | .80 | 1.35 | 2.00 |
| 11 | | .80 | 1.00 | 1.00 | .80 | 1.25 | 1.75 |
| 12 | | 1.80 | 1.00 | 1.00 | .80 | .95 | .85 |
| 13 | | 1.60 | .90 | .95 | .80 | .82 | .95 |
| 14 | | 1.30 | .80 | .90 | .80 | .75 | 1.45 |
| 15 | 2.00 | 1.10 | .70 | .90 | .75 | .65 | .80 |
| 16 | 1.70 | 1.00 | .75 | .80 | .70 | .60 | .95 |
| 17 | 1.55 | 1.75 | 1.05 | .80 | .70 | .65 | 1.15 |
| 18 | 1.45 | 1.15 | .90 | .75 | .80 | .60 | 1.30 |
| 19 | 1.40 | 1.10 | .90 | .70 | .80 | .60 | 1.00 |
| 20 | 1.30 | .95 | .70 | .70 | .80 | .70 | .85 |
| 21 | 1.20 | .90 | .75 | 1.00 | .90 | .65 | 1.00 |
| 22 | 1.05 | .80 | 2.30 | 1.30 | .80 | .50 | 1.35 |
| 23 | 1.05 | .80 | 2.35 | 3.60 | .80 | .50 | 1.45 |
| 24 | 1.10 | .80 | 1.95 | 1.90 | .80 | 1.30 | 1.70 |
| 25 | 1.00 | .90 | 1.15 | 1.50 | .80 | 1.40 | 1.85 |
| 26 | 1.35 | .80 | 1.00 | 1.15 | .80 | 1.25 | 1.45 |
| 27 | 1.10 | .90 | 1.00 | 1.10 | .80 | 1.15 | 1.20 |
| 28 | 1.00 | .80 | 1.00 | 1.00 | .85 | .90 | 1.55 |
| 29 | 1.30 | 1.65 | 1.00 | 1.00 | .75 | .75 | 1.75 |
| 30 | 1.05 | 1.20 | .95 | .90 | .70 | .65 | 1.15 |
| 31 | | .95 | .90 | | .65 | | 1.60 |

# RIVER PROFILE SURVEYS IN THE TENNESSEE RIVER DRAINAGE BASIN.

## SURVEY OF HIWASSEE RIVER.

Hiwassee River was surveyed from Hiwassee, Ga., to Apalachia, N. C., a distance of 63 miles. In that distance there is a fall of 707 feet. A line of secondary levels based on the United States Geological Survey bench mark at Hiwassee, Ga., was run. The field sheets were platted on the scale of 1:22,500. During the course of the survey 39 bench marks were established and 119 water-surface elevations obtained.

There are no shoals of any consequence until just below Bell Creek, where there is one of 10 feet with good rock bottom and rock bluffs on the northeast side of the river. A dam could be constructed here with a length of about 200 feet.

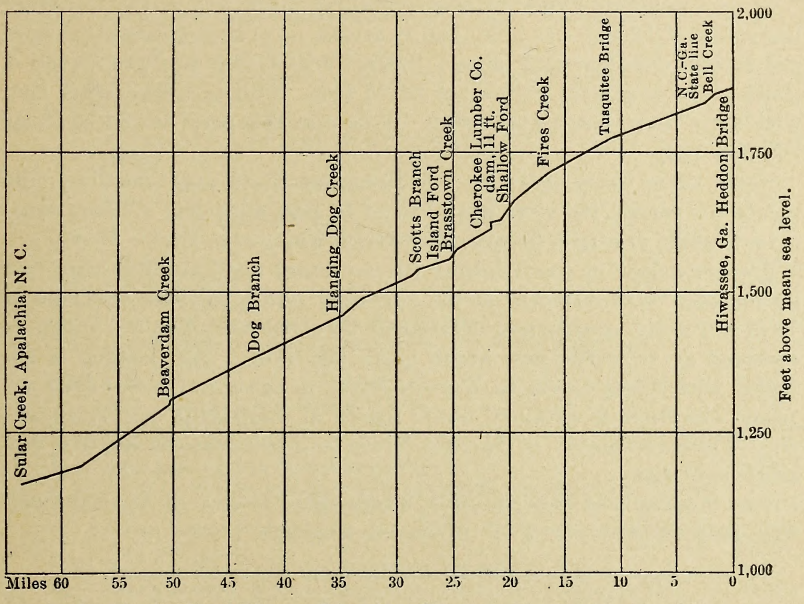


FIG. 2.—Profile of Hiwassee River from Hiwassee, Ga., to Apalachia, N. C.

One mile below Hayesville Bridge is a shoal with a fall of 18 feet in 1¼ miles, but no suitable place for a dam was noted.

One and one-half miles below, at Passmore Ford, is a shoal with a 21-foot fall in 1¼ miles and with a fairly good site for the construction of a dam. The bottom is rocky and there are rock bluffs on the south side of the river. The dam would be about 300 feet long.

Four and one-half miles below is the 12-foot dam of the Cherokee Lumber Company. This is a splendid site. A 40-foot structure would not back the water over 1½ miles and would not do any damage to cultivated lands.

Three miles below, at Island Ford, is a shoal with a 17-foot fall in 1 mile. This is an excellent dam site, as the bottom is rocky and there are hard-rock bluffs on either side. The dam would be 300 feet long. Building material can be easily obtained. Five miles below, and about 1 mile above Murphy, is a shoal with a 25-foot fall in 1¾ miles long with a fall of 25 feet. This is an excellent power site. The bottom is rocky; both sides are of hard rock. The dam would be about 500 feet long.

Seven and one-half miles below Murphy, at Shallow Ford, is a shoal with 14-foot fall in 1¼ miles. This offers an excellent site for a dam, as bottom and banks are rocky. The dam would be about 550 feet long. Three miles below Shallow Ford is a shoal with a 20-foot fall in 1½ miles. The dam here would be only about 400 feet long.

Two miles below is a 23-foot shoal 1¾ miles long, where the river runs between steep hills. The dam here would be 600 feet long. Excellent building material is at hand.

From Chambers Creek to lower Shallow Ford, 6½ miles, the river has a fall of 15 feet per mile, and is almost a continuous shoal. There are several excellent dam sites. From Shoal Creek to Cane Creek, 2 miles, there is a shoal with a fall of 38 feet. This is a fine power site, with hard, rocky bottom and sides. A dam at this point would be about 700 feet long.

From Cane Creek down to the Tennessee State line (5 miles), the end of the survey, the river has a fall of 30 feet, with only a 7-foot shoal three-fourths of a mile between Kilpatrick Ferry and Taylor Ferry.

The elevations in the following list are based upon an aluminum tablet marked "1984 Atlanta" at the northeast corner of front vestibule of Towns County courthouse, Hiwassee, Ga., the elevation of which is accepted as 1,983.634 feet above mean sea level. The leveling is adjusted with flying levels on Nottely River to accord with the 1903 adjusted elevation of primary bench marks at Blairsville and Hiwassee, Ga. From the mouth of Nottely River to Apalachia the leveling is a single spur line.

The leveling was done in 1903, under the direction of Carroll Caldwell, field assistant, by T. B. O'Hagan, levelman.

ELEVATIONS ON HIWASSEE RIVER FROM HIWASSEE, GA., TO APALACHIA, N. C.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Hiwassee, Towns County, courthouse, at northeast corner of front vestibule, aluminum tablet marked "Atlanta, 1984" | 1,983.634 |
| .3 | Hiddon Bridge, 300 feet north of, edge of county road, white-oak tree, nail in west side of | 1,882.30 |
| .3 | Hiddon Bridge, surface of water | 1,865 |
| .3 | High water | 1,882 |
| .3 | Bridge floor | 1,881 |
| .8 | Town Branch, mouth of, surface of water | 1,862 |
| 1.6 | 25 feet north of bridge, 20 feet west of river, point on bluff rock | 1,871.36 |
| | Bridge, surface of water | 1,857 |
| | B. F. | 1,874.8 |
| | High water | 1,876 |
| 1.7 | Hog Creek, mouth of, surface of water | 1,855 |
| 1.9 | Small rapids, surface of water | 1,854 |

ELEVATIONS ON HIWASSEE RIVER FROM HIWASSEE, GA., TO APALACHIA, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 2.2 | Bell Creek, 900 feet north of, on east edge of river, triple maple tree, nail in side of | 1,854.14 |
| 2.2 | Bell Creek, mouth of, surface of water | 1,853 |
| 2.3 | Small falls, head of, surface of water | 1,851 |
| 2.3 | Small falls, foot of, surface of water | 1,847 |
| 2.8 | Surface of water | 1,838 |
| 3.4 | Sally Ford, mouth of, surface of water | 1,836 |
| 3.6 | Hog Creek, mouth of, surface of water | 1,833 |
| 3.7 | Surface of water | 1,830 |
| 3.8 | Gibson Creek, mouth of, surface of water | 1,829 |
| 4.8 | Long Bullet Creek, mouth of, surface of water | 1,825 |
| 4.8 | Pendelton Ford, 25 feet northwest of, nail in side of dead stump | 1,838.20 |
| 4.8 | Surface of water | 1,823 |
| 4.8 | High water | 1,835 |
| 5.2 | Sneaking Creek, mouth of, surface of water | 1,820 |
| 5.5 | Surface of water | 1,819 |
| 5.6 | ——— Ford, 75 feet northwest of, 10 feet west of road, nail in red-oak tree | 1,830.62 |
| 6.1 | 15 feet north of river, point on rock | 1,824.63 |
| 6.2 | Surface of water | 1,811 |
| 6.4 | Stream, mouth of, surface of water | 1,809 |
| 6.4 | Rough Ford, 15 feet north of river, rock bluff, point on rock | 1,816.84 |
| 6.9 | Surface of water | 1,807 |
| 7.2 | Shooting Creek, mouth of, surface of water | 1,804 |
| 7.9 | Barnard Bridge, northeast abutment, point on top of | 1,818.31 |
| | Surface of water | 1,797 |
| | Bridge floor | 1,819.7 |
| | High water | 1,814 |
| 8.3 | ——— Ford, surface of water | 1,794 |
| 8.3 | ——— Ford, 50 feet south of ford, 15 feet north of river, nail in side of dogwood tree | 1,807.89 |
| 8.8 | Surface of water | 1,790 |
| 9 | Head of island | 1,789 |
| 9.2 | Hyatts Mill Creek, mouth of, surface of water | 1,787 |
| 9.4 | Herbert Ford, on south edge of river at, nail in side of birch tree | 1,791.09 |
| | High water | 1,799 |
| | Surface of water | 1,787 |
| | Blair Creek, mouth of, surface of water | 1,787 |
| 10 | 12 feet west of river, point on rock | 1,796.74 |
| 10 | Surface of water | 1,782 |
| 10.8 | Town Creek, mouth of, surface of water | 1,778 |
| 11.5 | Tusquitee Bridge, 250 feet west of, on edge of river, nail in root of birch tree | 1,778.90 |
| | Bridge, surface of water | 1,774 |
| | High water | 1,794 |
| 11.8 | Martin or Quail Creek, mouth of, surface of water | 1,174 |
| 12.2 | Surface of water | 1,773 |
| 12.6 | Tusquitee Creek, mouth of, 150 feet northwest of, 10 feet west of river, nail in root of birch tree | 1,777.93 |
| 12.6 | Surface of water | 1,771 |
| 12.8 | Rapids, surface of water | 1,767 |
| 13.3 | Below rapids, surface of water | 1,760 |
| 13.6 | Stream, mouth of, surface of water | 1,759 |
| 14 | Martin Ford, 125 feet south of, on west edge of river, a fish trap, nail in root of birch tree | 1,757.74 |
| | Surface of water | 1,756 |
| 14.8 | Surface of water | 1,742 |
| 14.9 | Leatherwood Ford, 25 feet northwest of, nail in walnut tree | 1,749.19 |
| | Surface of water | 1,741 |
| 16 | Allbon Creek, mouth of, surface of water | 1,741 |
| 16.4 | Surface of water | 1,722 |
| 17 | Fires Creek, mouth of, surface of water | 1,712 |
| 17.3 | Mountain stream, mouth of, surface of water | 1,708 |
| 17.5 | Passmore Ford, east side of river, in center of ford road, nail in root of gum tree | 1,709.84 |

ELEVATIONS ON HIWASSEE RIVER FROM HIWASSEE, GA., TO APALACHIA, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 17.5 | Surface of water | 1,707 |
| 17.7 | Cloud Fire Creek, mouth of, surface of water | 1,700 |
| 18.3 | Surface of water | 1,690 |
| 18.8 | Betty Creek, mouth of, surface of water | 1,685 |
| 19.1 | Head of island, surface of water | 1,679 |
| 19.4 | Sweetwater Creek, mouth of, surface of water | 1,673 |
| 19.6 | Stream, mouth of, surface of water | 1,668 |
| 20 | Shallow Ford, 15 feet east of river, nail in side of birch tree | 1,667.14 |
| 20 | Surface of water | 1,663 |
| 20.5 | Surface of water | 1,659 |
| 20.9 | End of island, surface of water | 1,649 |
| 21 | Creek, mouth of, surface of water | 1,642 |
| 21.4 | Surface of water | 1,632 |
| 21.5 | Surface of water | 1,629 |
| 21.8 | Backwater of Cherokee dam, 1,500 feet from, at small rapids, surface of water | 1,624 |
| 22 | Top of Cherokee dam, surface of water | 1,625 |
| 22 | Foot of dam, surface of water | 1,614 |
| 22 | Cherokee dam, 25 feet southwest of, point of rock | 1,616.59 |
| 22 | Surface of water | 1,609 |
| 22.2 | Canewater Ford, surface of water | 1,606 |
| 24. | Rocky Branch, mouth of, surface of water | 1,591.4 |
| 24 | North edge of river, nail in side of birch tree | 1,594.79 |
| 24.1 | Small rapids, foot of, surface of water | 1,590 |
| 24.7 | Stream, mouth of, surface of water | 1,586 |
| 25.2 | Brasstown Creek, mouth of, surface of water | 1,576 |
| 26.2 | Island Ford, 700 feet east of, south side of river, point on rock | 1,566.56 |
| 27.6 | Peachtree Creek, mouth of, surface of water | 1,550 |
| 28 | Horseshoe Ford, surface of water | 1,549 |
| 28 | South side of ford, nail in side of beech tree | 1,553.06 |
| 29.5 | 20 feet north of river, north side of road, point on rock | 1,548.70 |
| 29.9 | Scott Branch, mouth of, surface of water | 1,539 |
| 30.4 | Stream, mouth of, surface of water | 1,529 |
| 31.3 | Martin Creek, mouth of, surface of water | 1,520 |
| 31.6 | Twin beech tree, nail in root of | 1,518.12 |
| 31.8 | Stream, mouth of, surface of water | 1,513 |
| 32.1 | Murphy, N. C., iron bridge, south abutment, point on rock | 1,518.30 |
| 32.1 | Surface of water | 1.512 |
| 32.1 | Bridge floor | 1,531.9 |
| 32.1 | High water | 1,529 |
| 32.5 | Valley River, mouth of, west shore, 20 feet north of, in water, point on rock | 1,506.85 |
| 32.5 | Surface of water | 1,506 |
| 33.6 | Surface of water | 1,499 |
| 34 | Surface of water | 1,491 |
| 34.9 | Laurel Creek, mouth of, surface of water | 1,474 |
| 35.3 | Johnson Ford, 8 feet south of river, nail in root of birch tree | 1,471.95 |
| 35.3 | Surface of water | 1,469 |
| 35.3 | High water | 1,481 |
| 35.9 | Hanging Dog Creek, mouth of, surface of water | 1,462 |
| 36.5 | Surface of water | 1,459 |
| 37 | Nottely River, mouth of, surface of water | 1,455 |
| 37 | On land projecting between the two rivers, birch tree, nail in root of | 1,459.40 |
| 37 | Nottely River, mouth of, south side of, willow tree, nail in root of | 1,456.93 |
| 38 | Small rapids, surface of water | 1,448 |
| 39 | Beach Creek, mouth of, surface of water | 1,438 |
| 40.5 | Surface of water | 1,425 |
| 40.5 | Shallow Ford, 40 feet southwest of ford, honey-bee tree, nail in root of | 1,431.59 |
| 41.2 | Surface of water | 1,418 |
| 42 | Grape Creek, mouth of, surface of water | 1,416 |
| 42.5 | Small shoals, head of, surface of water | 1,415 |
| 42.5 | Small shoals, surface of water, foot of | 1,410 |
| 42.9 | Surface of water | 1,406 |
| 44.1 | Persimmon Creek, mouth of, surface of water | 1,391 |
| 44.8 | Foot of large shoals, point on rock | 1,390.24 |

ELEVATIONS ON HIWASSEE RIVER FROM HIWASSEE, GA., TO APALACHIA, N. C.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 44.8 | Surface of water | 1,381 |
| 45 | Head of small shoals, surface of water | 1,379 |
| 46.2 | Dennest Creek, mouth of, surface of water | 1,365 |
| 46.9 | Point on rock | 1,363.58 |
| 48 | Shoals, surface of water | 1,346 |
| 48.8 | Robertson Ferry, 100 feet below, point on rock | 1,344.23 |
| 48.8 | Surface of water | 1,343 |
| 49.9 | Shoals, surface of water | 1,340 |
| 50.4 | Creek, mouth of, surface of water | 1,332 |
| 50.6 | Surface of water | 1,329 |
| 51.2 | Chambers Creek, mouth of, surface of water | 1,324 |
| 51.2 | 20 feet north of bank, point on rock | 1,327.94 |
| 51.8 | Opposite island, surface of water | 1,318 |
| 52.5 | Beaverdam Creek, mouth of, surface of water | 1,304 |
| 53 | Opposite island, surface of water | 1,296 |
| 53.9 | Lared Creek, mouth of, surface of water | 1,290 |
| 54.3 | Shoals, surface of water | 1,285 |
| 54.3 | Foot of shoals, surface of water | 1,277 |
| 54.8 | Surface of water | 1,269 |
| 55.2 | Rapids, surface of water | 1,259 |
| 56.9 | Anderson Creek, mouth of, surface of water | 1,248 |
| 57.9 | Surface of water (15 feet above low water) | 1,240 |
| 58.5 | Shallow Ford, 40 feet south of, nail in root of gum | 1,239.67 |
| 58.5 | Surface of water | 1,234 |
| 58.5 | High water | 1,241 |
| 58.6 | Foot of small shoals, surface of water | 1,227 |
| 58.9 | Shoals Creek, mouth of, surface of water | 1,227 |
| 59.7 | Foot of small rapids, surface of water | 1,218 |
| 60.8 | Stream, south of, surface of water | 1,198 |
| 61.1 | Cane Creek, mouth of, surface of water | 1,195 |
| 63 | Surface of water | 1,178 |
| 64.2 | Camp Creek, mouth of, surface of water | 1,175 |
| 65 | Kilpatrick Ferry, 12 feet south of, willow tree | 1,175.14 |
| 65 | Surface of water | 1,172 |
| 65.2 | Taylor Ferry, 60 feet northwest of, edge of bank, point on large rock | 1,169.58 |
| 65.2 | Surface of water | 1,166 |
| 66.8 | Apalachia, N. C., Sular Creek, mouth of, 100 feet from post-office, 5 feet north of bank of river, triple willow tree | 1,161.58 |
| 66.8 | Surface of water | 1,158 |
| 66.8 | High water | 1,168 |

## SURVEY OF NOTTELY RIVER.

Nottely River was surveyed from its mouth, 3½ miles below Murphy, N. C., to Blairsville Bridge, near Blairsville, Ga., a distance of 38 miles. In that distance there is a fall of 314 feet. A line of secondary levels was run, based on a primary bench mark of the United States Geological Survey at Hiwassee, Ga., and the field sheets were platted on a scale of 1:22,500. During the course of the survey 30 bench marks were established and 88 water-surface elevations obtained.

One mile above the mouth of the river is a 24-foot shoal 1 mile long, where there is an excellent solid rock dam site. At this place a dam would be 200 feet long. Three and one-fourth miles farther up, at Hall Ford, there is a shoal with a fall of 33 feet in 1¾ miles, with good bottom and good sides. A dam would be about 350 feet long.

For 9 miles above this point the bottoms widen and are cultivated on either side for most of the distance. The fall in this section is a little over 3 feet per mile.

One mile below Laudermilk Ford there is a shoal with a fall of 10 feet in three-fourths of a mile where a dam, with a length of 200 feet, could be built.

At Thompson Bridge, at the foot of a 46-foot shoal, 3 miles long, is an excellent dam site. From Weazel Creek to Morgan Ford, 5½ miles, the river has a fall of 40 feet, and there are two or three suitable sites for small dams. At Katkins Bridge there is a 4-foot dam using all the available power to operate a gristmill.

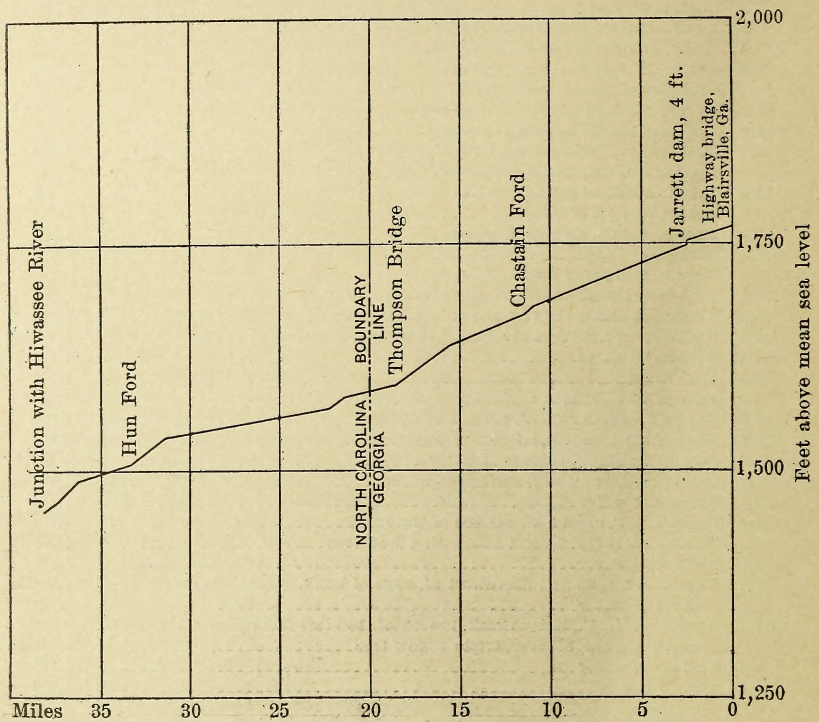


FIG. 3.—Profile of Nottely River from Near Murphy, N. C., to Bridge Near Blairsville, Ga.

From here to Blairsville Bridge, the end of the survey, the river is very much smaller, with a few small shoals, which, however, do not seem worth developing.

The elevations in the following list are based upon a bronze tablet marked "1892 Atlanta" in the foundation wall at northwest corner of Union County courthouse, Blairsville, Ga., the elevation of which is accepted as 1,891.536 feet above mean sea level. The leveling is adjusted with the Hiwassee River flying levels to accord with the 1903 adjusted elevation of primary bench marks at Blairsville and Hiwassee. The leveling was done, under the direction of Carroll Caldwell, field assistant, by T. B. O'Hagan, levelman.

ELEVATIONS ON NOTTELY RIVER FROM ITS MOUTH TO BLAIRSVILLE, GA.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Junction of Nottely and Hiwassee rivers, on point of peninsula, nail in side of birch tree | 1,459.40 |
| .0 | Surface of water | 1,454.52 |
| .3 | At lower ford, surface of water | 1,459 |
| .3 | Seventy-five feet north of lower ford, nail in root of hickory tree | 1,466.77 |
| 1 | High-water mark | 1,471 |
| 1 | Upper ford, 50 feet south of, nail in root of oak tree | 1,474.59 |
| 1 | Surface of water | 1,467 |
| 1.3 | Surface of water | 1,477 |
| 1.5 | Surface of water | 1,472 |
| 1.5 | Surface of water | 1,478 |
| 1.8 | Deep Ford, 25 feet north of, nail in root of black oak | 1,487.56 |
| 1.8 | Surface of water | 1,483 |
| 2 | Surface of water | 1,489 |
| 2.3 | High water | 1,499 |
| 2.4 | Head of shoals, surface of water | 1,491 |
| 2.6 | Surface of water, rain during night raised 1.3 feet (lower water surface, 1,492.67 feet) | 1,493 |
| 2.9 | Hall Bridge, 20 feet west of, nail in side of apple tree | 1,500.20 |
| 2.9 | Surface of water | 1,493 |
| 2.9 | High water | 1,503 |
| 4.2 | Davis Ford, 20 feet northwest of, nail in side of maple tree | 1,504.43 |
| 4.2 | Surface of water | 1,499 |
| 4.9 | Surface of water, on rock | 1,502 |
| 5.2 | Mouth of Coombs Creek, surface of water | 1,505 |
| 5.4 | Surface of water | 1,505 |
| 5.5 | Hall Ford, north edge of river, nail in side of water birch tree | 1,513.02 |
| 5.5 | Surface of water | 1,505 |
| 5.5 | High water | 1,521 |
| 5.9 | Mouth of branch, surface of water | 1,512 |
| 6 | Surface of water | 1,520 |
| 6.6 | Surface of water | 1,526 |
| 6.9 | Opposite island, surface of water | 1,534 |
| 7 | Mouth of Rocky Branch, surface of water | 1,535 |
| 7.1 | Near old mill, surface of water | 1,538 |
| 7.5 | Surface of water | 1,542 |
| 8.6 | Nottely Bridge, 1,800 feet north of, in old field near barn, nail in side of persimmon tree | 1,559.54 |
| 8.6 | Mouth of branch, surface of water | 1,544 |
| 8.9 | Nottely Bridge, 100 feet west of, 5 feet south of road, nail in side of black-oak tree | 1,560.13 |
| 8.9 | Surface of water | 1,544 |
| 9.6 | Surface of water | 1,547 |
| 10.5 | Mouth of Johnson Branch, surface of water | 1,548 |
| 10.9 | Surface of water | 1,551 |
| 11.5 | Jack Creek, 900 feet south of, in bend of river, 600 feet west and 600 feet north of, in cornfield, nail in root of dead peach tree | 1,571.83 |
| 11.5 | Surface of water | 1,554 |
| 11.7 | Surface of water | 1,555 |
| 12 | Anderson Bridge, 50 feet west of, nail in side of sycamore tree | 1,565.78 |
| 12 | Surface of water | 1,556 |
| 12 | High water | 1,575 |
| 12.2 | Surface of water | 1,560 |
| 12.9 | Mouth of branch, surface of water | 1,561 |
| 13.3 | Ford (has no name), 20 feet northeast of, nail in side of birch stump | 1,574.02 |
| 13.3 | Surface of water | 1,562 |
| 13.3 | High water | 1,577 |
| 14.2 | Surface of water | 1,565 |
| 15.1 | Surface of water | 1,568 |
| 15.4 | Laudermilk Ford, 1.4 miles below, opposite old fish dam, 50 feet west of river, near small branch, nail in root of black-oak tree | 1,586.77 |
| 15.6 | Surface of water | 1,573 |
| 16 | Surface of water | 1,580 |
| 16.8 | Laudermilk Ford, 100 feet southwest of, 20 feet north of road, nail in root of apple tree | 1,598.19 |

ELEVATIONS ON NOTTELY RIVER FROM ITS MOUTH TO BLAIRSVILLE, GA.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 16.8 | Surface of water | 1,583 |
| 16.8 | High water | 1,599 |
| 17.2 | Mouth of Butler Creek, surface of water | 1,585 |
| 17.7 | Below fish dam, surface of water | 1,587 |
| 17.8 | Mouth of Moccasin Creek, surface of water | 1,588 |
| 17.8 | Moccasin Creek, 200 feet south of, 35 feet east of river, east side of road, nail in root of red-oak tree | 1,602.87 |
| 18.5 | Mouth of branch, surface of water | 1,591 |
| 18.6 | Mouth of Dooley Creek, surface of water | 1,591 |
| 18.9 | Thompson Bridge, 250 feet south of, 100 feet southeast of road, nail in root of red-oak tree | 1,611.01 |
| 18.9 | Surface of water | 1,592 |
| 18.9 | High water | 1,601.53 |
| 19.1 | Surface of water | 1,599 |
| 19.6 | In shoals, surface of water | 1,611 |
| 20.2 | Above fish dam, surface of water | 1,617 |
| 20.4 | Head of fish dam, surface of water | 1,619 |
| 20.8 | Foot of island, in shoals, surface of water | 1,624 |
| 21 | Surface of water | 1,630 |
| 21.4 | Chapman Ford, 150 feet north of, 2 feet east of road, nail in root of walnut tree | 1,645.81 |
| 21.4 | Surface of water | 1,634 |
| 21.4 | High water | 1,644 |
| 21.8 | Just below fish dam, surface of water | 1,638 |
| 21.9 | Mouth of Camp Creek, surface of water | 1,639 |
| 22.6 | Above shoals, surface of water | 1,652 |
| 23 | Mouth of Weasel Creek, surface of water | 1,655 |
| 23.6 | Mouth of branch, surface of water | 1,656 |
| 23.8 | In shoals, surface of water | 1,657 |
| 23.8 | Chamber Ford, 0.4 mile northeast of, northwest side of river, point on edge of rock | 1,675.88 |
| 24.2 | Chamber Ford, 200 feet west of, nail in root of walnut tree | 1,671.49 |
| 24.2 | Surface of water | 1,661 |
| 24.2 | High water | 1,678 |
| 25 | Above small shoals, surface of water | 1,669 |
| 25.2 | Chastain Ford, 50 feet west of, nail in side of walnut tree | 1,683.45 |
| 25.2 | Surface of water | 1,669 |
| 25.5 | Foot of large shoals, surface of water | 1,675 |
| 25.8 | Mouth of Ivylog Creek, head of shoals, surface of water | 1,680 |
| 26.3 | Near house, surface of water | 1,685 |
| 26.6 | Majners Ford, 75 feet west of, on edge of bank, nail in side of corn-bean tree | 1,690.8 |
| 26.6 | Surface of water | 1,687 |
| 26.8 | Meadow Ford, 15 feet north of, nail in root of beech tree | 1,699.17 |
| 26.8 | Surface of water | 1,689 |
| 26.8 | High water | 1,703 |
| 27.3 | Huggins Ford, 25 feet north of, corn-bean tree, nail in side of | 1,707.82 |
| 27.3 | Surface of water | 1,692 |
| 27.5 | Shoals, surface of water | 1,694 |
| 27.8 | Surface of water | 1,698 |
| 27.9 | Above shoals, surface of water | 1,698 |
| 28.4 | Morgan Ford, 40 feet north of, red-oak tree | 1,714 |
| 28.4 | Surface of water | 1,702 |
| 29 | Mouth of Young Cane Creek, surface of water | 1,699 |
| 29 | Mouth of Castile Creek, surface of water | 1,709 |
| 29.1 | Castile Creek, 1,600 feet above, on rock, edge of river, point on rock | 1,714.20 |
| 29.4 | Above rapids, surface of water | 1,715 |
| 30 | Above fish dam, surface of water | 1,718 |
| 30.3 | McBee Ford, 60 feet north of, nail in side of red oak | 1,734.37 |
| 30.3 | Surface of water | 1,721 |
| 30.8 | Above branch, surface of water | 1,723 |
| 31.1 | Mouth of Reece Creek, surface of water | 1,724 |
| 31.4 | Youngs Ford, 80 feet southwest of, red-oak tree | 1,741.02 |
| 31.4 | Surface of water | 1,727 |
| 31.5 | Millburn Creek, just below, surface of water | 1,730 |

ELEVATIONS ON NOTTELY RIVER FROM ITS MOUTH TO BLAIRSVILLE, GA.—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 31.9 | At canal, surface of water at foot of | 1,732 |
| 31.9 | Head of canal, surface of water | 1,735 |
| 31.9 | Canal cut, 50 feet northeast of river, 15 feet southwest of ford, nail in root of red-oak tree (cut has a drop of 3.6 feet) | 1,741.26 |
| 32.2 | Above small rapids, surface of water | 1,739 |
| 33 | Mouth of creek, surface of water | 1,743 |
| 33.6 | Watkins Bridge, 375 feet above, north edge of river, point on rock | 1,747.54 |
| 33.6 | Surface of water | 1,747 |
| 33.6 | Jarrett milldam, foot of, surface of water | 1,748 |
| 33.6 | Jarrett milldam, head of, surface of water (Jarrett milldam has a drop of 3.79 feet) | 1,752 |
| 34.5 | Reeds Ford, 150 feet east of, nail in root of walnut tree | 1,766.24 |
| 34.5 | Surface of water | 1,755 |
| 35 | Above small rapids, surface of water | 1,760 |
| 35.9 | Blairsville Bridge, 100 feet southeast of, mouth of Butternut Creek, 15 feet north of, nail in side of red-oak tree | 1,775.94 |
| 35.9 | Surface of water | 1,769 |
| 35.9 | High water | 1,783 |
| 37.2 | Blairsville courthouse, Union County, Ga., in wall on west side of building, bronze tablet | 1,891.536 |

## SURVEY OF THE FRENCH BROAD RIVER.

The profile survey which was made by the United States Geological Survey on French Broad River, extends from Paint Rock to Asheville, a distance of 43 miles. The total fall in the distance is 714 feet.

This survey was made in 1902 by C. M. Pritchett, under the direction of Prof. J. A. Holmes.

The elevations given in the following tables are taken from a profile made by C. M. Pritchett.

ELEVATIONS ON FRENCH BROAD RIVER.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Paint Rock, mouth of creek, water surface | 1,250 |
| 1.2 | Murray Creek, mouth of, water surface | 1,270 |
| 2.3 | Water surface | 1,288 |
| 4.8 | Spring Creek, mouth of, water surface | 1,306 |
| 6 | Southern Railway bridge, water surface | 1,326 |
| 7.3 | Mountain Island, head of, water surface | 1,360 |
| 8.5 | Laurel Creek, mouth of, water surface | 1,388 |
| 10 | Water surface | 1,416 |
| 10.5 | Water surface | 1,439 |
| 12.7 | Brush Creek, mouth of, water surface | 1,498 |
| 13.4 | Barnard station, water surface | 1,509 |
| 14.9 | Water surface | 1,540 |
| 16 | Walnut Creek, mouth of, water surface | 1,552 |
| 18.3 | Bear Creek, mouth of, water surface | 1,583 |
| 19.7 | Water surface | 1,603 |
| 20.2 | Water surface | 1,623 |
| 20.8 | County highway bridge, water surface | 1,626 |
| 21 | Marshall station, water surface | 1,636 |
| 23 | Southern Railway bridge, water surface | 1,660 |
| 23.5 | Ivy River, mouth of, water surface | 1,666 |
| 26 | Water surface | 1,704 |
| 27.3 | Sandy Mush Creek, mouth of, water surface | 1,713 |
| 30.7 | Flat Creek, mouth of, water surface | 1,756 |
| 31.8 | Alexander, N. C., county bridge, water surface | 1,774 |

ELEVATIONS ON FRENCH BROAD RIVER—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 32.3 | Water surface | 1,783 |
| 33.2 | Water surface | 1,832 |
| 3418 | Lick Creek, mouth of, water surface | 1,862 |
| 37.4 | Beaver Creek, mouth of, water surface | 1,921 |
| 38.2 | County bridge, water surface | 1,930 |
| 40.4 | Reed Creek, mouth of, water surface | 1,950 |
| 42 | Southern Railway bridge, water surface | 1,960 |
| 43 | Asheville | |

SURVEY OF NOLICHUCKY, TOE, NORTH TOE, AND CANEY RIVERS.

The Nolichucky River is an important tributary of Holston River. It is formed by the junction of Toe and Caney rivers; Toe River is again divided in North Toe and South Toe rivers. The profile survey was made by the Hydrographic Branch of the United States Geological Survey, and extends from the mouth of North Indian Creek in Tennessee, near the State line, to the mouth of Plumtree Creek, which is a tributary of North Toe River, and from the mouth of Caney River to Borlans Creek.

The work was done in 1902, by C. M. Pritchett, under the direction of Prof. J. A. Holmes.

The following water-surface elevations are taken from the profile sheets:

ELEVATIONS ON NOLICHUCKY, TOE AND NORTH TOE RIVERS.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | North Indian Creek, mouth of, water surface | 1,614 |
| .7 | Martins Creek, mouth of, water surface | 1,621 |
| 2.4 | South Indian Creek, mouth of, water surface | 1,646 |
| 2.9 | Ferry, water surface | 1,654 |
| 3.1 | Old dam, foot of, water surface | 1,656 |
| 3.4 | Water surface | 1,666 |
| 3.7 | South and Western Railroad bridge, water surface | 1,680 |
| 6.9 | State line, North Carolina-Tennessee, water surface | 1,766 |
| 7.4 | Water surface | 1,772 |
| 8 | Water surface | 1,820 |
| 10 | Water surface | 1,893 |
| 11.3 | South and Western Railroad bridge, water surface | 1,965 |
| 13 | Mouth of branch, water surface | 1,978 |
| 13.4 | Water surface | 1,995 |
| 15.6 | Head of Nolichucky River, which is junction of Toe and Caney rivers, water surface | 2,023 |
| 15.6 | Caney River, mouth of, water surface | 2,023 |
| 16.2 | Huntdale Ferry, water surface, on Toe River | 2,028 |
| 18.6 | Pigeon Roost Creek, mouth of, water surface | 2,060 |
| 20.7 | Raccoon Creek, mouth of, water surface | 2,088 |
| 21.4 | Rock Creek, mouth of, water surface | 2,105 |
| 22.1 | Jacks Creek, mouth of, water surface | 2,115 |
| 22.6 | Pig Pen Creek, mouth of, water surface | 2,121 |
| 23.4 | Green Mountain Station, at ferry, water surface | 2,124 |
| 25.7 | Water surface | 2,138 |
| 26.2 | Mouth of branch, water surface | 2,147 |
| 26.9 | Water surface | 2,154 |
| 27.8 | Water surface | 2,172 |
| 28.9 | Water surface | 2,212 |
| 29.5 | Cane Creek, mouth of, water surface | 2,224 |

ELEVATIONS ON NOLICHUCKY, TOE AND NORTH TOE RIVERS—*Continued.*

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 32.4 | Roses Branch, mouth of, at ford, water surface | 2,254 |
| 32.8 | Sink Hole Creek, mouth of, water surface | 2,262 |
| 33.6 | Chandler Branch, mouth of, water surface | 2,276 |
| 36.7 | South Toe River, mouth of, water surface | 2,330 |
| 38 | Boons Ford, on North Toe River, water surface | 2,365 |
| 38.9 | Water surface | 2,385 |
| 39.9 | Crabtree Creek, mouth of, water surface | 2,390 |
| 40.6 | Snow Creek, mouth of, water surface | 2,405 |
| 42.5 | Water surface | 2,434 |
| 43.2 | Big Bear Creek, mouth of, water surface | 2,452 |
| 43.7 | Water surface | 2,464 |
| 44.5 | Water surface | 2,469 |
| 45.1 | Water surface | 2,480 |
| 46.3 | Spruce Pine, N. C., at Ford | 2,492 |
| 46.8 | Beaver Creek, mouth of, water surface | 2,496 |
| 47.7 | Grassy Creek, mouth of, water surface | 2,508 |
| 48.5 | Catheys Creek, mouth of, water surface | 2,520 |
| 49.1 | Dam site, water surface | 2,530 |
| 50.8 | Roses Creek, mouth of, water surface | 2,544 |
| 52.4 | Big Jacks Creek, mouth of, water surface | 2,559 |
| 53.6 | Mouth of branch, water surface | 2,565 |
| 54.5 | Water surface | 2,582 |
| 56.2 | Brushy Creek, mouth of, water surface | 2,616 |
| 56.8 | Clear Branch, mouth of, water surface | 2,619 |
| 57.2 | Water surface | 2,626 |
| 60.2 | Gouches Creek, mouth of, water surface | 2,666 |
| 61.3 | Ravens Criff, water surface | 2,682 |
| 62.8 | Wiseman Mill, water surface | 2,714 |
| 64.5 | Three Mile Creek, mouth of, water surface | 2,742 |
| 66.8 | Pyatts Branch, mouth of, water surface | 2,783 |
| 67 | Water surface | 2,793 |
| 68.4 | Heusons Creek, mouth of, water surface | 2,824 |
| 69.8 | Plumtree Creek, mouth of, water surface. End of survey | 2,855 |

ELEVATIONS ON CANEY RIVER.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Mouth of Caney River, water surface | 2,023 |
| .5 | Water surface | 2,035 |
| 1.8 | Public road crossing, water surface | 2,051 |
| 2.8 | Public road crossing, water surface | 2,065 |
| 3.4 | Big Creek, mouth of, water surface | 2,084 |
| 4.7 | Public road crossing, water surface | 2,116 |
| 6.6 | Public road crossing, water surface | 2,165 |
| 7 | Bent Creek, mouth of, water surface | 2,178 |
| 9.1 | Little Bald Creek, mouth of, water surface | 2,250 |
| 9.8 | Big Bald Creek, mouth of, water surface | 2,264 |
| 10.8 | Holloway Branch, mouth of, water surface | 2,310 |
| 12.5 | McCrackins store, water surface | 2,356 |
| 13.9 | Public road crossing, water surface | 2,390 |
| 15.5 | Wampler post-office, water surface | 2,427 |
| 18.5 | Prices Creek, mouth of, water surface | 2,470 |
| 22.3 | Public road crossing, water surface | 2,536 |
| 23.9 | Public road crossing, water surface | 2,586 |

## SURVEY OF WATAUGA RIVER.

This river profile survey was made in 1902, by the Hydrographic Branch of the United States Geological Survey. The work was done by A. Henderson and F. L. Foust, under the direction of Prof. J. A. Holmes.

The following water-surface elevations are taken from the large profile:

ELEVATIONS ON WATAUGA RIVER FROM CRABORCHARD CREEK TO STATE LINE.

| Distance in Miles. | | Elevation in Feet. |
|---|---|---|
| 0.0 | Craborchard Creek, mouth of, water surface | 2,646 |
| 2.9 | Water surface | 2,622 |
| 3.1 | Cove Creek, mouth of, water surface | 2,608 |
| 5.2 | Water surface | 2,583 |
| 6.1 | Water surface | 2,576 |
| 7 | Laurel Creek, mouth of, water surface | 2,560 |
| 7.2 | Water surface | 2,544 |
| 7.5 | Water surface | 2,543 |
| 9.2 | Beaverdam Creek, mouth of, water surface | 2,503 |
| 10.4 | Timber Ridge Branch, mouth of, water surface | 2,471 |
| 11 | Beech Creek, mouth of, water surface | 2,424 |
| 12.3 | Stone Mountain Branch, mouth of, water surface | 2,280 |
| 13.6 | State line, North Carolina-Tennessee, water surface | 2,124 |
| 14 | Water surface | 2,080 |
| 14.5 | Water surface | 2,025 |

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